Administration Report of the Forest Circles in the Bombay Presidency including Sind

1916-17 to 1918-19

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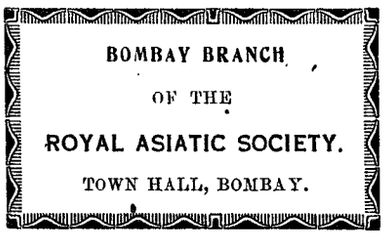

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ADMINISTRATION REPORT OF THE FOREST CIRCLES IN THE BOMBAY PRESIDENCY, INCLUDING SIND, FOR THE YEAR 1916-1917.

CONSERVATORS IN CHARGE OF CIRCLES DURING THE YEAR.

Northern Circle.

W. F. D. Fisher, Esquire.

Central Circle.

O. H. L. Napier, Esquire.

Southern Circle.

T. R. Bell, Esquire.

Sind Circle.

G. R. Duxbury, Esquire.

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CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

Northern Circle.

Class of forest.	Area on 1st July 1916.		Added during the year.		Excluded during the year.		Area on 30th June 1917.		Remarks.
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
Reserved ...	2,688	195	0	55	*1	279	2,686	611	*Of which 589 acres 38 gunthas were assigned to a milk farm at Pálghar in North Thána and 184 acres of forest land given up for cultivation in North Násik.
Protected ...	488	269	0	64	0	53	488	280	
Leased . { Reserved .	330	595	...		...		330	595	
Leased . { Protected.	325	13	...		...		325	13	
Total ...	3,832	432	0	119	1	332	3,831	219	

During the year, as set forth in Government Orders Nos. 11646 and 11786 dated 28th and 30th November 1916, the Násik and Thána forest divisions were reorganized, resulting in greatly increased efficiency of the executive staff without additional expenditure.

Central Circle.

The forest area at the close of the year was 5,400 square miles 239 acres as against 5,436 square miles 431 acres at its commencement. Alterations in areas in charge of the department were trifling, 1 square mile 541 acres being added to reserved forest and 201 acres deducted. The main cause of the net reduction in area of 36 square miles 192 acres lay in the disforestment for cultivation of 37 square miles 526 acres of pasture forests in charge of the Revenue Department in the Poona and Ahmednagar districts. Six acres of protected forest were disforested and leased forests remained unchanged. Eight square miles 280 acres of pasture forest in the Poona division were handed over to the Revenue Department after clearance of the tree growth, and this operation is now practically completed, one village alone remaining. Areas in charge of the Forest Department now total 3,731 square miles 217 acres, in charge of the Revenue Department 1,669 square miles 22 acres.

Southern Circle.

The total area of forest was reduced by 5 square miles and 212 acres during the year as follows :—

Class of forest.	Area on 1st July 1916.	Added during the year.	Excluded during the year.	Area on 30th June 1917.	Remarks.
	Sq. m. Acres.	Sq. m. Acres.	Sq. m. Acres.	Sq. m. Acres.	
Reserved ...	4,456 228	4 103	0 134	4,449 473	Changes due to rectifications of errors intimated by the Forest Settlement Officer on a comparison of forest registers with survey papers and on remeasurement of areas in Kánara and Dhárwár.
	...	0 *495	*11 219	...	
Protected ...	132 103	*0 2	...	133 286	
		1 181	...		
Total ...	4,588 331	4 105	0 134	4,583 119	
		*2 36	*11 219		

The real additions to, and the exclusions from, the area were 4 square miles and 105 acres, and 134 acres, respectively.

The additions to reserved forest occur mainly in the Kánara Northern and Belgaum divisions and are mostly from Government assessed waste lands relinquished by occupants and from scattered waste lands not in demand for cultivation. A few more in other divisions, wedged in between existing patches of jungles, were afforested. Disforestments in Kánara, Dhárwár and Bijápur were in the interests of agriculture.

In completion of the rearrangements of divisions in Kánara, Dhárwár and Bijápur as per Government Order No. 11396 of 27th October 1915 and in continuation of the readjustments, referred to in the last Annual Report as introduced from 1st February and 1st May 1916, the following changes were effected in Kánara Eastern, Central and Western divisions from 1st July 1916 :—

(*a*) portions of the Bhartnalli and Katur ranges of the Kánara Eastern division were transferred to the Sirsi range of the Kánara Central division—resulting in the sub-division of this range into two others styled the Sirsi East and Sirsi West ranges ;

(*b*) a bit of the Yellápur range of the Kánara Eastern division was similarly transferred to the Kádra range of the Kánara Western division.

These interchanges have not affected the total area of the circle.

An area of 7 square miles and 133 acres of pasture forests of the Parasgad taluka in the Belgaum division was transferred from the management of the Revenue Department to that of the Forest Department to complete the blocks of the Gokák working plan, sanctioned in Government Order No. 7352 dated 25th July 1916.

Sind Circle.

The alterations in area were :—

Class of forest.	Area on 1st July 1916.	Added during the year.	Excluded during the year.	Area on 30th June 1917.
	Sq. m. Acres.	Sq. m. Acres.	Sq. m. Acres.	Sq. m. Acres.
Reserved ...	1,159 141	32 433	18 346	1,173 228
Protected ...	0 585	... ...	... ...	0 585
Total ...	1,160 86	32 433	18 346	1,174 173

The additions comprise—

		Sq. m.	Acres.
Alluvial accretion	...	31	592
Reservation by notification	...	...	481
Rectification on resurvey	...	...	...
Total	...	32	433

The exclusions were—

Erosions	...	18	346
Disforestment or transfer	...	...	...
Rectification by resurvey.	...	...	...
Total	...	18	346

The eroded area is thus classified—

		Acres.
Growing valuable timber	...	1,562
New alluvium without trees	...	3,840
New alluvium with young growth	...	4,077
Coupes under regeneration	...	565
Blanks	...	1,822
Total	...	11,866

In the previous year the total erosion was 16,180 acres.

The value of the material exploited from eroded areas (*vide* Government Resolution No. 804 of 2nd February 1900) was—

		Acres.	Rs.	a.	p.
Approximate area eroded after exploitation	...	740			
Average value per acre	...		6	12	0
Estimated value of timber before exploitation	...		4,996	7	9
Actual receipts	...		4,996	7	9

Contractors agreed to pay the price asked by the department.

Eight hundred and twenty-two acres, 800 of which were in Alláhbux, Bahádipur and Achámárho forests containing growth valued at Rs. 6,910 were eroded before exploitation was possible owing to a sudden change in the course of the river during the inundation season.

One thousand seven hundred and sixty acres threatened with erosion were exploited. The resultant material was sold for Rs. 12,494.

Acquisition of kachas adjoining forest—

		Acres.
Kacha claims pending at the end of last year	...	12
New claims made during the year ...	...	31
Decided in favour of the Forest Department	...	31
Decided against the Forest Department	...	*Nil.*
Claim withdrawn	...	*Nil.*
Still undecided	...	12

Two thousand three hundred and eighty-two acres and 2 gunthas were temporarily alienated to other departments; of these 2,353 acres were handed over to the military farm near Ruk.

2.—Forest Settlements.

Northern Circle.

These are complete.

Central Circle.

Settlement work consisted of the notification under section 19 of the Forest Act of 1 square mile 541 acres, comprising small areas taken up for inclusion in forest or for buildings. Under section 4 of the Act notifications regarding 22 square miles 405 acres of waste lands in West Khándesh, and of 331 acres in other divisions were issued by Forest Settlement Officers.

Outstanding work as mentioned in last year's report consists of the acquisition of teak bearing lands within the demarcation line in Sátára and Poona, and a report on the subject will shortly be submitted to Government. Minute examination of these lands has been found necessary in order to determine which are really required for forest purposes and which can be excluded for good and all, and this has delayed the submission of proposals in this important matter.

Southern Circle.

Four square miles and 105 acres were notified under section 19, and 2 square miles and 154 acres under section 4, of the Forest Act.

The proposals for the appointment of special Forest Settlement Officers for Kánara and Belgaum having been negatived by Government, the arrear work, detailed in the Annual Report for 1914-15, will have to be cleared in the usual way by the Assistant Collectors in the order of urgency. Proposals for afforestation of assessed waste lands in the Dhárwár and Bijápur districts were submitted to the respective Collectors during the year.

Rs. 9,674 were spent on "Forest Settlements" as under:—

	Rs.
Acquisition of land for forest in Belgaum ...	1,044
Acquisition of land for forest in Kánara S. D. ...	26
Acquisition of land for a fuel depôt in Kánara C. D.	380
Compensation for a building acquired for Range Forest Officer's residence at Ankola in Kánara C. D.	2,000
Cost of the Wild Tribes (Berads) settlement at Khánápur in the Belgaum division (G. R., J. D., No. 7784, dated 30th November 1916) chargeable to "exploitation of fuel—A-I-b" but shown under the above head by the Accountant General	6,224
Expenditure in 1915-16	2,594

Sind Circle.

	Acres.
Area awaiting settlement at the commencement of the year	677
Area added by notification under section 4 of the Indian Forest Act	89
Total ...	766
Area actually settled under section 19 of the Indian Forest Act	480
Balance awaiting settlement	286
Expenditure	*Nil.*

The need for more riverain forest in Upper Sind has been pointed out to the Commissioner in Sind.

3.—Demarcation.

Northern Circle.

Of the 109 miles remaining to complete the demarcation of the circle, 3 miles out of the 42 in Igatpuri range and 3 miles out of the 66 in the Dindori and Peint ranges were demarcated during the year, leaving 103 in all to be completed.

Central Circle.

In the 1915-16 report outstanding work was said to consist of 162 miles in Kolába, and 658 in the Akola and Rajur ranges, Nagar district, but forming part of the Poona division. The former figure was an underestimate, as actually 192 miles have been demarcated during the year, which completes the work in Kolába. The latter figure was largely overestimated; Akola has been completed by the demarcation of 68 miles, and 124 miles only in Rajur now remain to be taken in hand, the error in last year's figures being due to

the two ranges having only a short time before been transferred to the circle, and to accurate estimation not having been made of the lines which required demarcation. In West Khándesh 26 miles of boundary of the lands under afforestation were completed.

The final results of the year were 286 miles of new boundaries costing Rs. 3,096 and 5,124 miles of existing boundaries repaired at a cost of Rs. 2,591.

Southern Circle.

The details of work done, and expenditure incurred, under this head are shown in Form No. 9.

New demarcation amounted to 37 miles of external boundaries as detailed below and 510 miles of internal boundaries:—

	Line demarcated.	Cost.	Cost per mile.
	Miles.	Rs.	Rs.
The Mysore State frontier line in the Kánara Southern division.	6	281	47
The Portuguese territory frontier line in the Kánara Western division.	24	1,301	54
The Sávantwádi State frontier line in the Belgaum division.	6	419	70
Boundary between two inam villages and British territory in the Kalghátgi range of the Kánara Northern division.	1	4	4

The cost of demarcation of these frontier boundaries varies with the nature of the country according as it is covered with thick jungle and hilly or otherwise. The cost of the Mysore frontier line, for instance, which was the heaviest in 1915-16, *viz.*, Rs. 131 per mile, came down to Rs. 47 or about one-third in 1916-17. About three miles now remain to be cut of this line and about 14 miles of the Portuguese frontier line, both of which will be completed in 1917-18.

The internal lines are boundaries of betta lands, 30 miles in Kánara Central division and 480 miles in Kánara Southern division. The cost of these amounted to Rs. 223 or Rs. 0·4 per mile, being easy work. Betta demarcation is reported to be complete now and the Divisional Forest Officer, Kánara Southern division, states that the Betta Officer's establishment may be discharged from October 1917.

In the Dhárwár-Bijápur division much work of clearing old lines was done as usual with the help of villagers on the concession of removing for their own use the wood and thorns cut. It is understood that the Collector of Dhárwár has issued orders requiring inamdars to clear the common boundaries between their lands and Government forests. The Collectors of the other districts will be required to issue similar orders in their districts.

Sind Circle.

Internal boundaries.—The forests are divided into half-mile squares by rides 20 feet wide.

Fifty-two and one-fourth miles of new compartment lines were cut during the year by the free labour of herdsmen except in Lárkána where the 9 miles cut through thick growth cost Rs 150.

Two thousand seven hundred and seventy miles of previously cut rides were kept clear by free labour valued at Rs. 5,541.

Ninty-eight thousand one hundred and fifty-nine acres remain round which rides have still to be cut. Most of this area contains very young lai (*Tamarix gallica*) growth in kachas, which in the course of time will be replaced by babul, and the work will then be taken in hand. The Deputy Conservator found arrears of demarcation work in the Hyderabad division especially in the mature Bahan forest of Keti Khásai, and this work will be commenced at once.

External boundaries.—Fifteen miles and 4,224 feet were demarcated with 241 new boundary marks. Nineteen thousand and seven old boundary marks on 2,022 miles 1,787 feet of line were repaired free of cost.

4.—Forest Surveys.

Northern Circle.

None were carried out.

The total expenditure under the heading "Constitution of State Forests" was Rs. 2,200 as against Rs. 3,269 in 1915-16.

Central Circle.

None were carried out.

The total expenditure on "Constitution of State Forests" was Rs. 8,625 as against Rs. 6,630 last year.

Southern Circle.

There were none.

The total expenditure on the "Constitution of State Forests" was Rs. 12,586 as against Rs. 6,630 last year.

Sind Circle.

The work done by the Working Plans Assistant and his staff and the surveyors attached to each division is given below separately :—

By whom.	Division.	River course surveyed.	Forest boundaries surveyed and checked.	No. of test trees measured.	Measurement of compartment lines.	No. of maps prepared.	No. of coupes marked and their area.	Levelling of bunds and drainage projects.
		Sq. m. Feet.	Sq. m. Feet.		Sq. m. Feet.		No. A. g.	Miles.
Working Plans Assistant and his staff.	Sukkur ...	65 1,848	725 3,300	995	776 2,772	.....	44 = 3,806 6	.....
	Hyderabad...	.....	.....	.....	.....	.....	26 = 1,877 0	.....
Divisional surveyors.	Sukkur ...	10 0	7 0	.....	27 0	41	.....	.....
	Hyderabad...	125 0	.....	.....	.....	275	59 = 3,366 0	.....
	Lárkána ...	.....	2 0	.....	.....	21	34 = 2,876 29	.....
	Jerruck ...	96 0	.....	.....	.....	20	37 = 2,273 6	15

The survey of river frontages and marking of coupes was carried out as usual by Range Forest Officers, the number of miles surveyed being 97½. Fifty-four tracings were prepared in the Lárkána division. Two sets of coupes were laid out during the year, both in the Hyderabad and Jerruck divisions, as a precaution in case the amount of firewood available was not sufficient for the military contract and the markets of Lower Sind, and to enable the selection of reserves for large babul timber to be done with greater care during the ensuing working season.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation and Management.

(*a*) *Preparation and Control of Regular Working Plans.*

Northern Circle.

A plan for the hitherto unorganized forests of the South Dángs was sanctioned by Government Order No. 4726 dated 16th April 1917. The only forests remaining to be brought under working plans are those of the Central Dángs (267 square miles) and some 13 square miles of protected forests in West Thána division.

Owing to the transfer of the former Divisional Forest Officer, Panch Mahál, to the Indian Army Reserve of Officers, the revised working plan for the Eastern Mahál was left undrafted, but its provisions, as laid down by the Superintendent of Working Plans, were applied, and the same principles are being extended to the Western Mahál forests of Godhra and Kálol. These provisions hinge mainly on the introduction of clear cutting in the place of coppice with standards, the rotation being suitably lengthened.

All the Thána forest working plans, after scrutiny, approval and suggestions on the spot by the Inspector-General of Forests in the months of January-February 1917, are being similarly revised under one plan, the draft of which is still in hand, and as the matter is urgent, its provisions are being introduced in anticipation of Government sanction.

It is satisfactory to note that in each of the above cases the result has been more conservative exploitation, together with more intense management, greater economy in working, and a higher revenue—though this last has been due to continued rise in prices of all material.

The revision of the working plan of the teak forests of the Násik divisions will, if possible, be considered in the coming year, but the reduced Imperial staff makes the matter difficult. In other forests the prescriptions of existing plans were duly carried out.

Central Circle.

Preparation.—The Inspector-General of Forests having been invited by Government to visit the Presidency and advise regarding the revision of existing and the preparation of new working plans, he was shown the Sátpuda forests of East Khándesh for which a plan had been drawn up in the previous year, but not submitted, the Sátpuda forests of North Khándesh on the revision of which the Working Plans Officer was at the time engaged, and the teak and babul forests in Poona which were under revision by the Divisional Officer. In the East Khándesh plan he recommended radical alterations, as also its combination with the North Khándesh plan, the forests of both being contiguous, of the same nature, and requiring similar treatment; in Poona he approved the lines on which the plans were based, but advised the adoption of the practice prevailing in other Provinces of having one plan for a whole division, with separate working circles for areas containing species requiring separate treatment, such practice making much for convenience and also for economy in printing. His advice on the above points is being followed and the results will reach Government during the current year. Naturally the taking in hand of the revision of all the plans of a division as a whole, instead of piecemeal as has hitherto been done, has caused delay in submission of the reports, but the delay is well worth while, and many of the Inspector-General's recommendations in matters of detail have already been brought into force.

The Working Plans Officer completed his plan for the Jávli, Wái and Sátára ranges of the Sátára division during the year, and this will shortly reach Government. It did not in all respects meet the Conservator's views and was held back for further consideration and alteration.

Control.—The prescriptions of existing plans were duly carried out subject to minor deviations resulting from shortage of labour, inferiority of growth, or inaccessibility of coupes. On the other hand, the keen demand for forest material resulted in these causes being less marked than usual and to coupes being more thoroughly worked.

Southern Circle.

Preparation.—Three working plans were sanctioned during the year :—

	System of working.	Area.	Total cost.	Cost per square mile.
		Sq. m.	Rs.	Rs.
(1) The Gokák fuel working plan in the Belgaum division.	Coppice with standards.	149	None but a trifling sum spent for a few photos illustrative of the plan. (23)	
(2) A revised plan for Bhagvati forests—Blocks VIII, IX and XX in Kánara N. D.	High forest selection system.	61	7,198	118
(3) A revised plan for Kirwatti teak pole area—Blocks XIV and XV in Kánara E. D.	Coppice with standards with a long rotation.	30	1,359	45

The first plan was compiled by Mr. Hodgson, Divisional Forest Officer, Belgaum, in the course of his ordinary duties with no extra cost, for which he was granted a special allowance of Rs. 500 by Government. The other two plans were done by Mr. Miller, Divisional Forest Officer, Working Plans.

Control.—The provisions of existing plans were carried out as far as the supply of labour and demand for the produce would admit. Some work is in arrears, particularly in Kánara Western and Eastern divisions, as will be seen from the detailed statement annexed to Form No. 11 in accordance with Government Order No. 9358 of 28th September 1916.

The work of improving the beds of the Kálinadi and Káneri for floating timber was continued but no definite results have yet been obtained. The work was done by Mr. Pipe, deputed from the Public Works Department and cost Rs. 12,997 (*vide* remarks under Chapter VI, 'General').

The survey of the Dándeli-Alnávar railway line (Dándeli-Távargátti in last year's report) was actually carried out this year but nothing has yet transpired as to when it is to be built. It is badly wanted.

If the railway line from Hubli to Sirsi *viâ* Kalghátgi and Mundgod, the survey of which has recently been sanctioned, is soon constructed and opened for traffic, the difficulties of forest transport, experienced in Kánara Eastern and Central divisions, will be much lessened.

Sind Circle.

The special work taken in hand during the year under report was in connection with the revision of the existing working plan of the forests of the Sukkur division. The field work was begun in November 1916 and completed at the end of April 1917.

The work comprised—

(*a*) Resurvey of external boundaries where inaccuracy had been revealed on comparison with forest maps;

(*b*) Resurvey of the course of the river Indus to ascertain and define its present position, and the changes effected by it in forest areas;

(*c*) Re-measurement of compartment lines;

(*d*) Measurement of sample trees;

(*e*) Detailed examination of compartments with a view to ascertain the composition and condition of the growing stock, and prepare stock maps accordingly.

The total cost incurred on the field work, inclusive of the pay of the Working Plans Assistant, Sind Circle, and his staff amounted during the year to Rs. 11,575.

The data collected during the previous working season was put on paper, and a revised plan for the Lárkána division is ready for criticism by the Deputy Conservator during the ensuing touring season.

(*b*) *Preliminary Working Plans.*

Northern Circle.

There were none.

Central Circle.

None were submitted, but in Sátára data were collected by the Sub-Divisional Officer for an extension of the areas now included in the Mahábleshwár plan, a work necessitated by the ever increasing consumption of fuel at that hill-station and the importance of checking illicit cuttings to meet the demand. In Poona the Divisional Officer will include in his general plan for the division fresh areas in Máwal and elsewhere, the organization of which appeared a short time back to be quite unnecessary, but which are now readily taken up by contractors; all data for the purpose were collected by him during his tour.

Southern Circle.

The following plans were sent to press during the year:—

(1) The Kalghátgi range plan;

(2) The Bankápur and Hangal forest plan.

Plans under preparation :—

(1) Revised plan for Yellápur slopes—completed ;
(2) Revised plan for Mundgod high forest ;
(3) Revised plan for Mundgod teak pole area ;
(4) The Honávar-Bhátkal fuel plan ;
(5) The working plan for Bijápur forests ;
(6) The Belgaum range plan ;
(7) Revised Khánápur fuel plan. (Has been submitted to the Conservator) ;
(8) Revised Golihali-Godoli teak pole plan.

Nos. 1 to 5 are being prepared by Mr. Miller, Divisional Forest Officer, Working plans, and Nos. 6 to 8 by Mr. Hodgson, Divisional Forest Officer, Belgaum ; but owing to the deputation of the latter as Deputy Controller of Timber Supplies under the Munitions Board to Bombay during the year and the appointment of Mr. Miller as Divisional Forest Officer, Belgaum, further progress with these plans is hardly possible until Mr. Miller is relieved of the charge of the Belgaum division or at least an independent Imperial officer becomes available for the Working Plans division.

The field work done by the Working Plans party during the year was confined to Kánara N. D. and Bijápur ; the expenditure on field work was :—

Inspection of Bijápur forests ...	Rs. 4,223	or 5·8 pies per acre.
Revision of Supa Blocks III, IV and V ...	Rs. 3,881	or 15 pies per acre.
Total ...	Rs. 8,104	

Sind Circle.

Nil.

(*c*) *Plans of Operations.*

Northern Circle.

These were duly prepared and submitted by the Divisional Forest Officers. There was no important deviation from them during the year.

Central Circle.

These were duly prepared and carried out.

Southern Circle.

Plans of operations were submitted by all the Divisional Forest Officers and carried out as far as possible, expenditure on unremunerative works, such as buildings and wells, being postponed with a view to economy as in last year. In Kánara N. D., owing to the prevalence of plague and cholera and the crossing over the Kálinadi river at Bailpár being out of repair, some of the contractors in the high forest could not extract as much timber to the Tavargatti depôt as was expected. In the Belgaum division also, contractors' work has hindered to a certain extent owing to plague and cholera and the late heavy rains—which last item delayed work everywhere else also.

Sind Circle.

These were prepared in all divisions and carried out as far as possible.

2.—Communications and Buildings.

(*a*) *Roads and Bridges.*

Northern Circle.

New roads were constructed in :—

	Rs.
Surat division (Dángs)—	
Mahal-Dulda, 1 mile ...	1,000
Borkhal-Bhawandagad, 2 miles ...	1,000
Galkund-Pandwa, ½ mile ...	1,500
Málegaon-Zaria, 6 miles ...	5,000
Málegaon-Chip ghát, 2 miles ...	1,500

		Rs.
North Thána—		
Káse-Udhwa, 5½ miles	...	3,410
West Thána—		
Potgaon-Badlápur, 1 mile	...	677
		14,087
Cart tracks in East Thána and South Násik	...	2,926
Total, New works	...	17 013
Total repairs in the circle, 196 miles	...	7,816
Grand total, Roads	...	24,829

Central Circle.

The total expenditure under this head was Rs. 9,378 as against Rs. 8,277 in 1915-16, 10 miles of new roads being constructed or partially so, or surveyed, at a cost of Rs. 2,071, and 144 miles of existing roads and paths repaired at a cost of Rs. 7,307.

In North Khándesh the final 3 miles of the Hisála-Bhoiti road, 10 miles long in all, were cut and levelled; though open to carts and already giving increased facilities for exploitation of coupes, this section still requires to be metalled before being fit to carry heavy traffic. On the Wásardi-Kodit road consolidation was continued, and extension towards Malkátar will be taken up. Other work consisted of conversion of bullock tracks into cart tracks, and of repairs to bridle paths. The advantage of pushing road communications deeper into the Sátpuda hills and of opening out areas from which at present none but the most valuable material is removable, is being kept in mind, and the work will be pushed on as quickly as funds and labour are available. The Conservator discussed these matters on the spot with the Divisional Forest Officer, and also inspected the alignment proposed by the Forest Department for the road into the Akráni, as an alternative to that proposed by the Public Works Department. From the forest point of view the former is incomparably the better, and Government have already ordered the Public Works Department to consider the point in detail.

In East Khándesh no work was carried out beyond improvement of difficult gradients on the rough cart tracks that alone exist in the Sátpudas. The country is difficult in the extreme, and careful surveys were the first essential. For this purpose a special surveyor was engaged, and 36 miles carefully aligned and pegged out. Systematic construction for a number of years can now commence; until these hills are properly opened up, the forests can never yield their full value.

In West Khándesh existing roads were repaired and improved. The Local Board road from Nawápur to Borzár is now almost finished, a work of great utility to the Forest Department, and to the maintenance of which on completion the latter has undertaken to contribute for a period of ten years.

In Poona 1 mile of ghát crest bridle path was converted into a cart track, giving access to a village 9 miles from Lonávla, a locality where there are considerable prospects of an increase in forest exploitation. Existing roads and bridle paths were kept in repair.

In Sátára the question of the partial abandonment of the Koyna valley road scheme referred to in last year's report is now before Government. The Vang valley road was repaired, and improved by the construction of Irish bridges, but further work in this direction is still required; the full utility of this road is somewhat detracted from by the bad state of repair in which its continuation towards the east is kept by the Local Board, and the Forest Department is proposing to take over this section if the Board will contribute the amount they now allot for repairs. Further extensions to the west into teak-bearing areas are contemplated.

In Kolába the few existing tracks were repaired.

Southern Circle.

Rs. 18,460 were spent on the construction of the undermentioned roads and bridges during the year as against Rs. 12,846 last year :—

Division.	Name of work.	Distance.		Cost.
		Miles.	Furlongs.	
				Rs.
Kánara N. D.	Fansoli-Bavlázára road (Special repairs.)	3	4	1,196
	Dabinkol road (Special repairs.)	1	6	264
	Kalghátgi-Kudalgi road (Special repairs.)	...	6	443
	Haliyál-Kávalgad road (Special repairs.)	3	...	1,117
	Kalkeri road (Special repairs.)	7	...	1,395
	Cycle paths	3	...	30
Kánara E. D.	5 bridges on Gunjávati-Kyatnaili road.	...	...	500
	2 bridges on Katur-Bomanhalli road.	...	...	524
	Dowginalla-Lalguli and Lalguli-Ghosemani roads.	7	...	1,180
	Katur-Bomanhalli road	2	4	
	Baildundur-Basyánkop road	3	4	
	Armáne-Hakkal road	1	1	
	Venkátápur-Arekop road	2	...	
	Chitgeri-Kurli road	4	...	
	Mundgod-Dhundshi road	5	...	
Kánara C. D.	Hattikeri-Gule road	2	...	377
Kánara W. D.	Kadra-Shivpur road—extension with 48 culverts on the road.	9	...	8,818
	Cycle paths	18	...	74
Belgaum	Gunji-Shiroli road	7	3	960
	Kanbárgi-Muchandi road			
	Completion of bridges on local fund roads.	...	...	1,582

Of the above, the last five only are new constructions. The Kádra-Shivpur road, costing in difficult places up to the present Rs. 1,000 and over per mile, will be one of the most important in Kánara as it will ensure the extraction of heavy timber from Gund and the Kálinadi valley. When the six extra miles aligned up to the Holegádda slide during the year is constructed and made fit for cart traffic, the whole road will be very useful and remunerative. The expenditure of Rs. 560 on the Kanbárgi road has raised the fuel revenue of the fellings affected from Rs. 1,930 in 1915-16 to Rs. 5,980 in 1916-17, or by Rs. 4,050.

A detailed scheme of forest roads was submitted to the Commissioner, S. D., in connection with the measures to be taken for obtaining additional revenue and orders thereon are awaited.

About 304 miles of forest roads and paths, besides the above, were repaired at a total cost of Rs. 25,205, compared with 252 miles repaired for Rs. 26,770 in the previous year.

The usual contribution of Rs. 5,000 was paid by each of the Kánara Northern and Western divisions for repairs of Local Board roads.

Sind Circle.

In Sind water carriage is usually resorted to, there is no metal for permanent forest roads, but the 20 feet rides throughout the forest are used to convey the material to the river banks, etc. These were repaired free of cost in all divisions.

(*b*) *Buildings.*

Northern Circle.

The following buildings were constructed in :—

		Rs.
Surat—		
Dharamshala at Fort Songad to accommodate timber merchants during auction sale period	...	3,750
Additional ward to Ahwa jail	...	500
North Thána—		
Offices and quarters for the Range Forest Officers of the three newly created ranges	...	13,107
East Thána—		
Guards' posts (kachha)	...	60
Total, New works	...	17,417
Repairs	...	2,734
Grand total, Buildings	...	20,151

Central Circle.

Expenditure under this head was Rs. 250 only on new works, Rs. 200 being spent on the completion of a guard's post in Sátára and Rs. 50 on temporary guard's quarters in Kolába. Elsewhere for financial reasons no buildings could be undertaken. Repairs to existing buildings cost Rs. 2,188. The provision of inspection bungalows in North Khándesh is very necessary ; tent life there in the hot weather with no shade available does not conduce to an officer's health and efficiency, and it is hoped to start on a definite programme as soon as circumstances admit. On the housing of the subordinate establishment also there is much to be done in all divisions.

Southern Circle.

The cost of new buildings was Rs. 2,227 as under :—

		Rs.
Kánara S. D.—Guards' quarters at Bhatkal	...	827
Dhárwár-Bijápur.—Guards' quarters at Makarwalli.		619
Belgaum.—Guards' temporary huts, six	...	52
Rest-house at Nagargali completed	...	490
Kánara N. D.—Minor fittings to rest-houses	...	84
Paving the floor of the Divisional Forest Office with stones	...	48
Guard's naka at Kambarganvi—special repairs	... ...	107
Total for 1916-1917	...	2,227
Total for 1915-1916	...	12,439
Total for 1914-1915	...	29,981

The above comparison shows how expenditure has to be curtailed from year to year for the sake of economy, though many buildings are urgently required.

Repairs to buildings cost Rs. 6,017 against Rs. 4,127 last year.

Sind Circle.

Rs. 580 were spent on new buildings or portions of buildings as under :—

Sukkur—

Rs. 125 on paving with pacca brick the floors of the office, record room and verandah of the Range Forest Officer, Abad ; Rs. 197 on paving with pacca brick the floor of the quarters of the Range Forest Officer, Abad, including verandah.

Lárkána—

Rs. 258 on building a new compound wall round the depôt at Lárkána.

Repairs to existing buildings cost Rs. 2,214.

The Public Works Department spent Rs. 177 on repairs to buildings in Sukkur.

(c) Miscellaneous.

Northern Circle.

	Rs.
The partial sinking of five wells in the Dángs of Surat and one each in North Thána and South Násik ...	1,540
Deepening and cleaning of existing wells in several districts ...	833
Total, Miscellaneous ...	2,373

Central Circle.

Rs. 622 were spent on wells including repairs in all divisions and one new work in West Khándesh. In Kolába wire fencing of a casuarina plantation cost Rs. 449.

Southern Circle.

			Rs.
Kánara W. D.	...	Construction of a waterway in the Káneri and Kálinadi rivers for floating timber from the Gund plateau forests to the Kodibág depôt—preliminary operations	12,997
		1 tank at Tinaighát	885
Belgaum	...	1 well at Chigule	500
		1 well at Nágargali—commenced ...	132
Dhárwár-Bijápur	...	1 well at Hangal—nearly finished ...	400
Kánara C. D.	...	1 well at Andle	350
Kánara E. D.	...	1 well at Chitgeri ... } commenced ...	306
		1 well at Kálkeri ... }	
Kánara N. D.	...	1 tank at Kulgi ... } special repairs .	155
		1 tank at Ambgaon... }	
		Total for 1916-17 ...	15,725
		Total for 1915-16 ...	393

The telephone connections between Yellápur and Kirwatti (Kánara E. D.) and between Tavargatti and Dándeli (Kánara N. D.) were maintained at annual rentals of Rs. 335 and Rs. 450, respectively.

Sind Circle.

New minor irrigation works were undertaken by the department as follows at a cost of Rs. 788:—

Lárkána—

	Rs.
Construction of a new bund in Hassanwahan forest to keep forest irrigation water off local fund road	155
Construction of a culvert for local fund road in Hassanwahan forest	397

This work was carried out under the orders of the Deputy Conservator as forest irrigation water had damaged the local fund road, and was likely to damage it in the future.

Sukkur—

Bund in Shergarh forest, Abad range	236

Repairs to existing irrigation works cost Rs. 2,593.

The Public Works Department constructed the following sluices during the year :—

	Rs.
Jerruck—	
Repairs to bund in Penah and Huderani forests ...	85
Construction of a sluice for irrigation of Penah and Huderani forests	5,070
Excavation of karia *ex* the sluice in Mulchand-Shahbunder bund and rebuilding of sluice (Shikár wah) ...	2,406
Repairing of Ghárko forest bund	150
Construction of pacca sluice Taki 46 right side Kalri wah...	157
Sukkur—	
Constructing a pacca sluice *ex*-Mahesro wah	211
Repairs to sluices and bunds	40
Total ...	8,119

3.—Protection of Forests.

(*a*) *General Protection.*

Northern Circle.

Statement of offences by nature and treatment and comparison with former years.

Division.		A Cases taken into Court.				B Cases compounded.				C Cases undetected.				Total.				Grand total.
		Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	
Panch Mahals	1916-17...	5	16	18	1	6	550	824	18	50	256	1	...	61	822	843	19	1,745
	1915-16...	5	2	10	...	7	571	853	76	43	275	1	6	55	848	864	82	1,849
Surat	1916-17...	3	1	...	3	16	21	36	10	2	3	...	...	21	25	36	13	95
	1915-16...	4	2	...	...	4	19	20	8	4	1	...	2	12	22	20	10	64
North Thána	1916-17...	...	21	1	...	...	191	228	27	55	151	...	...	55	363	229	27	674
	1915-16...	1	13	1	1	4	142	197	31	57	135	...	2	62	290	198	34	584
West Thána...	1916-17...	6	27	9	1	4	197	362	26	31	115	2	3	41	339	373	30	783
	1915-16...	3	9	13	2	1	259	368	35	71	181	2	1	75	449	383	38	945
East Thána ...	1916-17...	5	18	6	4	9	329	240	48	64	113	7	1	78	460	253	53	844
	1915-16...	4	17	12	4	5	315	248	60	66	124	1	...	75	456	261	65	857
South Násik...	1916-17...	1	7	9	2	5	163	123	38	41	36	...	...	47	206	132	40	425
	1915-16...	1	3	7	3	7	142	128	22	42	41	...	...	50	186	135	25	396
North Násik...	1916-17...	1	8	3	1	1	180	334	46	6	14	...	1	8	202	337	48	595
	1915-16...	1	6	2	1	3	239	314	53	22	37	...	...	26	282	316	54	677
Násik Sub-Division.	1916-17...	...	3	5	...	1	301	278	11	13	36	...	...	14	340	283	11	648
	1915-16...	1	5	7	1	1	229	351	22	13	23	...	1	15	257	358	24	654
Total of 1916-17 ...		21	101	51	12	42	1,932	2,425	224	262	724	10	5	325	2,757	2,486	241	5,809
Total of 1915-16 ...		20	57	52	12	32	1,916	2,479	307	318	817	4	12	370	2,790	2,535	331	6,026
Average of the past three years.		52	63	58	13	40	2,014	2,061	258	370	870	5	12	462	2,946	2,124	283	5,816

The circle figures for the year are unremarkable. Protection generally was as satisfactory as can be reasonably hoped for in view of the steadily increasing state of inefficiency and shortage of staff, especially the former. The forest protective staff is the guard of an otherwise open treasury and requires greater immunity from common want. The uncertainty of prospects under a graded cadre of appointments accentuates present hardship.

Protection against theft.—The total number of cases of illicit fellings reported was approximately the same as last year, being 2,757 against 2,790. The number of cases prosecuted rose from 57 to 101—every division showing an increase owing to the need for deterrent action. Compounded cases rose from 1,916 to 1,932 and undetected cases fell from 817 to 724, which are tendencies in the right direction. The number of unreported cases is legion, but if adequate notice were taken of these the staff would be so reduced as to make work impossible.

Panch Mahâls—The return from this division shows little diminution from the excessive figure of last year, then attributed to scarcity. It is hoped that the Divisional Forest Officer's remark about increased vigilance is the real explanation. More energy is required throughout.

Surat—This is the only division in which protection is really satisfactory. It is so *in spite* of difficulty with establishment which is chronic, and due to the extensive privileges of a small population and the paramount position of the Divisional Forest Officer. The inefficiency of the staff is chiefly felt in sylvicultural matters to the detriment of the future crop.

North Thána—The Divisional Forest Officer writes that theft of the best young teak is on the increase owing to the absence of the large bamboo which died six or seven years ago. He hopes to mitigate the evil by supply from thinnings under the revised working plan introduced this year. The worst of it is that in the absence of an efficient staff these casual misfortunes show the people our helplessness and give rise to temptations which threaten to assume the form of habit.

West Thána—In recording a decrease of unauthorized fellings reported in all ranges except Kalyán the Divisional Forest Officer says: "To my mind the improvement is more apparent than real. I am afraid in some rounds the offences are not correctly reported." It is satisfactory to note that in the last three years a reduction of offences in Bassein from 172 to 89 is attributable to the satisfactory working of special depôts in that taluka. The monetary loss to Government by such arrangements is considerable but is deemed justified and similar depôts are suggested for Thána, Bhiwandi and Murbád. The matter will be considered, but each case must rest on its merits or the whole country side will demand Government usurping the place of the retail trader.

East Thána—The Divisional Forest Officer mentions an increase in the number of offences in Igatpuri and South Sháhápur ranges but hopes the newly started firewood depôt at the former place will improve matters especially when he starts one at Ghoti also. There is justification for both these depôts. The increase in South Sháhápur was anticipated and is due to better reporting since the creation of the new range.

South Násik—The protection in the above-ghát portions of the Dindori range is, as usual, the worst in all respects, in spite of repeated warnings and communal punishments. It is bad also in Násik. In Dindori four villages have been reported to the Collector with the recommendation for the levying of double grazing fees and twenty-two villages are reported for warnings; while in Násik range two villages have been reported for double grazing fees and fourteen for warnings. The firewood depôt at Trimbak was carried on with some effect but, as usual, much difficulty was experienced in obtaining labour.

North Násik.—A decrease from 282 to 202 cases is reported. This is undoubtedly a false picture and as the Divisional Forest Officer remarks regarding reduction in reported offences generally "...indicates slackness on the part of subordinates especially in Kálwan". An able Ranger has recently been appointed in Kálwan in the place of the late man who was long past for active work and it is hoped things will now improve.

Násik Sub-Division.—The figures in this charge show a considerable increase, doubtless due to its consisting of an area which up to date has had little inspection from superior officers. These are early days to say more.

Central Circle.

The following table classifies the number of offences reported during the year as compared with those of 1915-16 and with the average of the three preceding years :—

Division.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total.	
	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forests by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	1916-1917.	1915-1916.
East Khándesh.	7	17	16	16	7	238	318	162	47	64	3	3	61	319	337	181	898	793
West Khándesh.	9	5	5	1	1	199	395	32	55	75	3	...	65	279	403	33	780	693
North Khándesh	6	2	1	3	12	171	144	64	43	103	2	...	61	276	147	67	551	590
Poona ...	4	25	26	8	33	767	878	194	83	128	6	1	120	920	910	203	2,153	1,905
Sátára ...	3	22	11	2	26	455	476	121	56	46	...	6	85	523	487	129	1,224	1,021
Kolába ...	23	128	35	13	12	314	380	65	36	286	4	6	71	728	419	84	1,302	1,273
Total of 1916-17.	52	199	94	43	91	2,144	2,591	638	320	702	18	16	463	3,045	2,703	697	6,908	...
Total of 1915-16.	30	235	84	79	64	1,960	2,326	449	282	727	20	19	376	2,922	2,430	547	...	6,275
Average of the three preceding years 1912-13 to 1914-15 ...	52	251	116	52	82	2,577	2,225	549	267	787	12	9	402	3,609	2,353	610	6,974	...

The total shows an increase of 633 as compared with 1915-16, every class of offence contributing, fires by 87, fellings by 123, grazing by 273 and other offences by 150. Comparing results with the previous three year average, fires increased by 61, felling decreased by 564, and grazings and other offences increased respectively by 350 and 87, giving a total decrease of 66.

Fires and grazing are dealt with in detail later ; as regards illicit fellings the variations, whether increase or decrease, are hardly of sufficient importance to call for much comment; the main point is that no serious thefts took place. As is only to be expected, the divisions that show an increase are Poona, Sátára and Kolába, those where there is least growth outside forest limits, and where temptation to commit depredations on forest to meet petty requirements is greatest; in this connection the evacuation of villages in several talukas of Poona on account of plague is said to have led villagers to steal forest material for erection of temporary huts. Other offences mostly consisted of encroachments on forest boundaries and breaches of the rules for control of forest material in transit.

Cases of the year taken into court numbered 388 as against 428. Including cases pending from 1915-16, 390 involving 956 persons, were disposed of. Of these 3 were withdrawn, and of the remaining 387,344 or 88·8 per cent., involving 843 persons, resulted in convictions, and 43 or 11·2 per cent., with 113 persons in acquittals. North Khándesh for the second year in succession had 100 per cent. of convictions. Prosecution was only resorted to in comparatively serious cases or where offenders refused to compound, for every case taken into court means that the time of forest officials is wasted when it could be far more profitably employed elsewhere. In one case only had a Divisional Officer to make representations to the District Magistrate regarding an inadequate sentence.

The number of cases compounded rose from 4,230 to 4,966 ; those in which offenders were merely warned fell from 569 to 498, and undetected cases rose from 1,048 to 1,056. The amount of compensation taken was Rs. 33,833, or an average of Rs. 3-13-11 from 8,741 persons.

Offences are summarized below according to the jurisdictions of two Commissioners.

	Divisions in the Central Division :— East, West and North Khándesh, Poona and Sátára.			Divisions in the Southern Division :— Kolába.		
	1915-16.	1916-17.	Plus or minus.	1915-16.	1916-17.	Plus or minus.
	No.	No.		No.	No.	
Total offences ...	5,002	5,606	+ 604	1,273	1,302	+ 29
Fires ...	333	392	+ 59	43	71	+ 28
Fellings ...	2,191	2,317	+ 126	731	728	— 3
Grazing ...	2,091	2,284	+ 193	339	419	+ 80
Other offences ...	387	613	+ 226	160	84	— 76
Cases taken into Court	214	189	— 25	214	199	— 15
Cases disposed of ...	208	188	— 20	217	199	— 18
Percentage of convictions.	95·6	92·2	...	94·9	85·9	...
Cases compounded ...	3,776	4,441	+ 665	454	525	+ 71
Compensation taken, Rs. ...	30,356	32,408	+ 2,052	1,617	1,425	—192
Cases warned No. ...	258	252	— 6	311	246	— 65
Offenders not traced .	754	72	— 30	294	332	+ 38

Communal punishment in the shape of enhancement of grazing fees or suspension of privileges was inflicted by the Collectors of Poona and Kolába on twenty-one villages where persistent damage by cutting or grazing had taken place ; on the other hand in the former division in five villages where such punishment had resulted in improved behaviour, grazing fees were again reduced to the normal rate. In Kolába the system was continued of working selected coupes for the supply of timber, firewood and agricultural implements to the coast towns and villages ; previously these people having no other source from which their wants could be met, and seeing the outturn from the forests all exported to Bombay, were driven to purchase from Katkaries and Thakurs who in their turn had to manufacture dead wood to keep up the supply. The system while of great convenience to the public is of equally great benefit to the forests in that it does away with the main incentive to abuse of the dead wood privilege by the wild tribes. From 15 depôts established for the above purpose 1,874 agricultural implements and 8,830,976 lbs. of fuel were sold by the coupe contractors.

A further indirect measure which is no less in the interests of forest protection than of the public is the tahal campaign carried on in Kolába by Revenue and Forest officers ; for an increase in the supply available from private lands must cause a corresponding decrease in depredations on the forests. While a noticeable improvement is apparent in methods of cutting, it cannot be said that there is as yet any inclination on the part of landholders to increase the supply by artificial propagation. For breaches of tahal rules three villages were punished by doubling of grazing fees or suspension of privileges, and for notably good work one village had its grazing fees remitted.

Southern Circle.

The following table gives the number and classification of forest offences reported during the year, as compared with those of 1915-16 and with the average of the past three years :—

Nature of offence.	A Taken into court.			B Compounded.			C Undetected.			Total.		
	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years.	1916-17.	1915-16.	Average of past 3 years
I.—Injury by fire ...	27	29	28	125	68	81	989	880	736	1,141	976	845
II.—Unauthorized fellings	98	57	120	2,384	2,455	2,602	351	376	473	2,833	2,888	3,194
III.—Unauthorized grazing	32	21	46	1,341	1,323	1,314	16	13	15	1,389	1,357	1,375
IV.—Other offences ...	18	5	9	261	302	331	3	9	11	282	316	351
Total ...	175	111	203	4,111	4,148	4,327	1,359	1,278	1,235	5,645	5,537	5,765

The total number of offences reported exceeded those of the previous year by 108 but were less than the average of the past three years by 120.

There was an increase in the number of fires, due to a larger number detected in betta lands of Kánara C. D., as per new betta rules introduced from February 1917 and to the several fires in the Siddápur range of Kánara S. D., purposely set by people to manufacture dead wood.

The offences of unauthorized grazing also slightly increased in Kánara N. D. and E. D. and Belgaum. The increase is ascribed to greater vigilance on the part of the staff and to more systematic reporting rather than to any actual increase of cases.

Unauthorized fellings and other offences decreased notably in Kánara S. D.

The policy of rewarding forest subordinates and villagers for detecting forest offences and punishing them for neglect was continued.

The results of cases tried by courts are compared in the following table :—

Division.	1916-17.		1915-16.		Percentage of acquittals.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1916-17.	1915-16.
Kánara N. D. ...	11	2	13	2	15·4	13·3
Kánara E. D. ...	5	1	4	4	16·7	50·0
Kánara C. D. ...	23	9	8	4	28·0	33·3
Kánara S. D. ...	41	11	36	17	21·2	32·1
Kánara W. D. ...	20	2	6	5	9·1	45·4
Belgaum ...	27	2	16	3	6·9	15·8
Dhárwár-Bijápur .	8	2	21	3	20·0	12·5
Ratnágiri ...	1	...	1	...	...	...
Total ...	136	29	105	38	17·6	26·6

The percentage of acquittals has decreased by 9 per cent. and is shared by all divisions except Kánara N. D. and Dhárwár-Bijápur.

Cases sent to court were largely those in which the offenders refused to compound; only 2·9 per cent of the total cases of the year were thus dealt with.

There was formerly a bad practice in Kánara which caused a lot of trouble to both the Magistrates and the forest staff. The fines levied by subordinate Magistrates from offenders were generally much less than the compensation originally fixed by the Forest Department with the result that offenders naturally refused to compound and preferred to go to courts. The Collector has, however, suitably dealt with such instances and they are not likely to give further trouble.

There were four important cases during the year, one in Kánara E. D. and three in Kánara C. D. In the Yellápur range of the former a serious case of theft of timber was detected, in which heavy compensation was recovered from offenders. In the latter a certain Mahomedan of Isloor in the Sirsi

range who systematically committed forest offences in the past was caught in two cases of theft of timber and fined Rs. 513 by the Sub-Divisional Magistrate, Sirsi. In another case of illicit cutting the offender was fined Rs. 300 by the court but, owing to some error in the legal procedure, the case was ordered to be re-tried and is pending disposal. The person who gave false evidence in the case of assault on a guard of the Badámi range in the Bijápur sub-division, referred to in the last report, was tried and convicted.

The number of cases compounded and the compensation recovered are compared in the following table :—

1916-17.		1915-16.		Average of past three years.	
No. of cases.	Compensation.	No. of cases.	Compensation.	No. of cases.	Compensation.
	Rs.		Rs.		Rs.
3,785	23,873	3,809	21,397	3,906	20,975

Nine-hundred and ninety-five offenders involved in 379 cases were let off with simple warning.

The number of undetected offences rose from 1,278 last year to 1,359 during the year, the increase being due to fires which are always difficult to trace.

Sind Circle.

The classification of forest offences detected during the year is given in the following prescribed form :—

Division.	Cases taken into Court.				Cases compounded.				Cases undetected.				Total.				Grand total.
	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	
Sukkur	2	52	11	2	...	598	808	6	50	404	...	...	52	1,054	819	8	1,933
Lárkána	...	9	6	1	...	217	250	5	22	61	...	...	22	287	256	6	571
Hyderabad	...	31	5	1	...	248	731	20	8	22	1	...	8	301	737	21	1,067
Jerruck	1	5	...	...	1	87	160	1	5	7	...	...	7	99	160	1	267
Total of 1916-17 ...	3	97	22	4	1	1,150	1,949	32	85	494	1	...	89	1,741	1,972	36	3,838
Total of 1915-16 ...	8	97	53	22	1	1,153	2,699	23	158	392	...	...	167	1,642	2,752	45	4,606
Average of past three years.	4	60	28	18	1	878	2,407	31	135	343	...	4	140	1,300	2,436	52	3,928

The total number of cases is less by 90 than the average of the past three years and is less under every head but that of unauthorized fellings. There is a great increase in the number of cases of unauthorized fellings reported; this number varies directly with the amount of walking done by the administrative officers.

Rain in the Kohistán hills during the month of March kept the number of illicit grazing cases down considerably, the total number being 1,972 compared with 2,752 during the previous year, and 2,436 the average of the past three years.

Undetected cases increased from 550 to 580 as compared with a three-yearly average of 482, but the increase was entirely under the head of unauthorized fellings. The form itself gives all statistical details.

The 3,132 cases compounded produced Rs. 11,937 in compensation as compared with 3,876 cases and Rs. 12,919 of last year.

Eighty-one cases were let off with a warning against 153 of the previous year.

The offences taken into court are detailed below:—

Pending from last year	...	54
Cases of the year ...	...	126
Total	...	180

Of these 122 were decided during the year, three cases pending last year in the Jerruck division were withdrawn, and two compounded. Of the 122 cases 94 resulted in conviction and 28 in acquittal: the percentage of acquittals being as follows:—

	1916-17.	1915-16.
Sukkur	34·8	13·7
Lárkána	27·2	20·0
Hyderabad	...	7·69
Jerruck	16·6	6·9

Out of the 23 cases lost in Sukkur no less than 16 were in the Kot Sultán range alone where they were tried by the Honorary Second Class Magistrate.

The two fire cases taken to court in the Sukkur range were not decided by the end of the year.

A case of obstructing a forest guard in the performance of his duty was successfully prosecuted in the Lárkána division, and a similar result was obtained in the Hála range of Hyderabad division. In the latter case the accused was sentenced to one month's rigorous imprisonment. In another case in which the services of the Public Prosecutor were obtained the nine accused were fined Rs. 40 each. It is satisfactory to note that all the eight cases reported pending in the Hyderabad division last year ended in conviction.

(*b*) *Protection from Fire.*

Northern Circle.

On the whole the fire protection of the circle was satisfactory there being 317 fires burning 24,119 acres as against 362 fires burning 38,576 in the last year, a reduction of 12½ per cent. in number and 37 per cent. in the area and last year showed a marked improvement on former years. Circumstances in different districts vary very much and it is difficult to find any common cause for the improvement recorded. That rainy weather continued till the end of November and began again at the end of April doubtless reduced the area burnt in many instances. There is also little doubt that the people generally are steadily acquiescing to a greater extent in the undesirability of firing the forests. The disappearance of dead bamboos has relieved the forests of much inflammable material in many localities. Incendiarism continued in the old centres but was less extensive and continued to show an absence of malice towards the department, hunting and local jealousies among those interested in grass being the motives.

Panch Mahdls.—Actual fires (neglecting mere breaches of rules) were 53 burning 5,573 acres as against 47 burning 4,874 acres in the last year. The Divisional Forest Officer's explanation that last year being a year of scarcity taught the people to protect their grass is a little difficult to accept. The figures of both years are about half the normal and when it is found that in spite of a normal season grazing offences maintained famine proportions it is feared that the reduction of fires was partly due to the absence of grass, which cannot be eaten *and* burnt.

Surat.—Results were as good as usual.

North Thána.—There were 55 fires burning 4,465 acres against an average of 59 fires burning 4,645. Half the area burnt is closed forest. The Dahánu range showed by far the worst result but it is noted that the Range Forest Officer was very short of roundguards owing to sickness. Results are satisfactory.

West Thána.—There were only 41 fires burning 1,544 acres as against 75 burning 5,126 acres last year. The decrease is attributed to a very wet season. Eight fires are stated to have been cases of incendiarism of which

six were made cases of prosecution. Only three were disposed of during the year and three were pending at the close which shows very undesirable delay in disposal. Of those disposed of, punishments varying from a fine of Rs. 2 to Rs. 10 were given, displaying a lack of appreciation of the gravity of the offence by the trying magistrates.

East Thána.—There were 78 fires burning 7,732 acres as against 75 burning 9,992 acres in the last year. Except in the Tansa catchment area fires were not serious and in this centre of incendiarism the area burnt has been reduced by 50 per cent. in the last three years—a very satisfactory result.

South Násik.—There were 47 fires burning 3,231 acres as against 50 burning 4,469 acres in the last year. Dindori range was answerable for 26 fires burning 2,419 acres and Násik for 15 burning 549 acres. The valuable forests of Peint are almost immune from fires. There was only one fire in these ranges, *viz.*, of 215 acres in North Peint. Some cartmen who were responsible were caught and punished.

North Násik.—A decrease from 26 fires burning 5,404 in the last year to 8 fires burning 250 acres is at first rather startling, but last year showed a big increase over the former years, and the average of the last three years is still only 16 fires, so that coupled with a wet season the result is not so surprising. The Divisional Forest Officer describes it as a 'lucky' year in fire conservancy. The Conservator fears it is largely 'luck' where slackness among subordinates is recognized.

Násik Sub-division.—This sub-division shows one fire less than last year but a reduction of two-third of the area burnt. No reason is given.

The following statement required by Government Resolution No. 248 of 12th January 1904 shows the area protected :—

Division.	Total forest area of the division in charge of the Forest Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for five years.	Extent of forest naturally immune from fire.	Extent of forest burnt.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Percentage.	Acres.	Acres.	Acres.	Acres.
Panch Maháls ...	2,12,152	2,12,152	74·7	...	1,679	3,894	5,573
Surat ...	4,63,507	4,63,507	99·3	...	42	31	73
North Thána ...	2,08,206	2,08,206	90·8	...	2,373	2,092	4,465
West Thána ...	2,05,974	1,97,778	88·4	1,500	914	630	1,544
East Thána ...	2,94,530	2,80,531	70·2	4,356	2,869	4,863	7,732
South Násik ...	2,17,860	2,17,860	95·9	49,920	2,105	1,126	3,231
North Násik ...	3,16,214	2,75,102	97·9		100	150	250
Násik Sub-division ...	1,65,133	1,65,133	78·6		367	884	1,251
Total ...	20,83,576	20,20,269	89·0	55,776	10,449	13,670	24,119

Central Circle.

The number of fires increased by 75, from 432 in 1915-16 to 507 in the year under report, and the area burned by 48,741 acres, from 1,55,471 to 2,04,212. Separating the figures for the Commissioners' jurisdictions, the Central Division has 431 fires and 2,02,815 acres, as against 385 and 1,54,638 in 1915-16, and the Southern Division has 76 fires and 1,397 acres, as against 47 and 833. Results, therefore, must be put down as unsatisfactory.

East Khándesh, it is true, shows a decrease in the area burned of a few thousand acres, though an increase of nine in the number of fires; but it has to be admitted that it is little more than chance whether the acreage is more or less, for in the Sátpudas, where the bulk of the fires occur, conditions and arrangements for the fire protection are not at present such that the Forest Department can ascribe success or failure to any one measure that it carried

out or failed to carry out. The difficulties that are experienced, and the measures that it was proposed to take to counteract them, were dealt with at some length last year, and Government having called for a special report, which has been submitted, it is unnecessary to go into the matter in detail now. But the problem may be stated briefly to be firstly, the introduction into these now uninhabited hills of a resident population, dependent on the forests for their livelihood and available at any season for prevéntive and protective fire measures; secondly, the exaction from forest villagers living near the forests of the help which it is their duty to give in return for the generous privileges they enjoy, but which help they now sedulously refrain from giving; thirdly, greater control, both as to place and season, over the movements of the casual fire-causing non-forest villager who now visits the forests for the sole purpose of taking something from them, but who has no interest whatever in their protection.

West Khándesh calls for no special comment other than that the area burned was slightly less than last year even though the number of fires was greater. The favourable results as regards area are ascribed partly to the effect of communal punishment in the previous year, partly to energetic work by the forest staff, and several of the fires were in comparatively valueless areas recently transferred from pasture to forest proper.

North Khándesh shows a decided setback, the number of fires rose from 44 to 72 and the area burned from 61,261 acres to 1,24,004, the division being thus responsible for more than the whole net increase shown for the circle. The greater part of the area burned was in the Akráni where the forests are unorganized, and if the 92,884 acres accounted for in this way be deducted from the total, there remain 31,120 acres of organized forest burned, a figure which is practically the same as that of last year for the corresponding areas. For the disappointing results in the Akráni the Divisional Officer gives two explanations, one that three fires started almost simultaneously and the population is too limited for such an emergency to be successfully met, the other that some patils and villagers showed gross negligence in fire matters, negligence which it may be mentioned was promptly punished.

Poona and Sátára are divisions which call for few remarks, the total burned area of the two amounting to no more than 7,089 acres. In numbers fires are comparatively large 124 in the former 86 in the latter, but partly because grass is so valuable a commodity, mainly because it is so scanty and confined to limited and isolated areas, no fire that breaks out is allowed to or can spread far; the anxieties that confront Khándesh officers are unknown here.

Kolába also presents a simple problem with a total area burned of but 1,397 acres, that is, an average of 18 acres for the 76 fires that broke out. Here the careless rab-burner is the main source of danger, and 35 of the 76 fires originated in this way; in 23 cases the offender being prosecuted.

Communal help rendered to Government in extinguishing fires lies very much on lines that might be expected. In Khándesh where no villager cares whether the grass is burned or not, and where work on a fire involves extremes of exertion and discomfort, much pressure, moral and material, is required to keep the people up to the mark. Thus in one division alone, North Khándesh, communal punishment had to be inflicted on 23 villages, four only being found to deserve reward for good help. In East Khándesh, a report has recently been made to Government asking for permission to substitute individual for communal punishment, the peculiar conditions and status of the privilege holders of the Sátpuda ranges making the latter form impracticable for successful application. In Poona, Sátára and Kolába, on the other hand, extinguishing a fire is not only a comparatively simple matter but one in which, as a rule, villagers in their own interests readily help; in Poona, however, exceptions to this as usual occurred in areas in temporary charge of the Military Department, the villagers' personal interest in such being less, and they, no doubt, having a score to pay off against the Military rakhawaldars for impounding of illicitly grazed cattle; four villages had their grazing fees doubled as a result.

For the whole circle the area under special protection was 23,88,058 acres and the cost incurred Rs. 16,819; 21,83,846 acres, or 91·4 per cent. were saved. Of the 2,04,212 acres burned 23,259 acres or 11·3 per cent. which is only half of last year's percentage were closed forest.

As regards origins of fires North and East Khándesh both show 11 cases due to carelessness in burning fire lines, though it is only fair to state that all these cases were not the result of departmental work, but that a large proportion were due to negligence of coupe contractors; it is satisfactory to note that the latter division has not to be pilloried this year, as has been the case for several years past, for the bad work of the forest staff in this respect. Eighty-nine cases occurred through fires crossing external boundaries, careless rab-burning in Kolába being the chief cause of offence in this respect. In 47 cases malicious firing is said to have been the cause, though proof of the same is generally wanting. In 188 cases the cause was unknown.

Fifty-four cases were taken into court, and in 31 of them convictions were obtained, in two the offenders were acquitted, three were withdrawn and 18 were pending at the close of the year. Seventy-one cases, either trivial ones in which little or no damage occurred, or rab-burning cases where the offenders made every effort to prevent damage occurring, were disposed of by compounding.

Southern Circle.

The area attempted to be protected from fire was 4,085 square miles as compared with 3,603 square miles in the preceding year. The percentage of failures was 2·0 against 8·7 which is satisfactory. The cost of protection was Rs. 5·6 per square mile against 5·3 in the previous year. Fire protection was, on the whole, much better this year than ever before, because of chiefly the late heavy rains in November, which kept the forests green longer than usual, and the special measures taken as a result of the disastrous fires of the previous year. The detailed results are compared with those of the previous year in the following statement :—

Division.	Area attempted to be protected.		Area burnt.		Area actually protected.		Percentage of success.		Cost.		Cost per square mile protected.	
	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-16.	1916-17.	1915-17.	1916-17.	1915-16.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.	Rs.
Kánara N. D.	420	405	10	116	410	289	97·6	71·5	4,945	3,426	12·1	11·8
Kánara E. D.	587	641	5	71	582	570	99·1	90·0	4,899	4,662	8·4	8·2
Kánara C. D.	779	285	20	38	759	247	97·4	86·6	1,026	889	1·4	3·6
Kánara S. D.	708	708	11	5	697	703	98·4	99·3	357	508	·5	·8
Kánara W. D.	829	837	8	36	821	801	99·0	95·7	2,838	1,493	3·5	1·8
Belgaum	636	627	20	35	616	592	96·9	94·5	7,934	6,030	12·8	10·2
Dhárwár-Bijápur	107	81	9	14	98	67	91·6	83·3	768	528	7·8	7·9
Ratnágiri	19	19	...	...	19	19	100·0	100·0	30	28	1·5	1·5
Total ...	4,085	3,603	83	315	4,002	3,288	98·0	91·3	22,797	17,564	5·7	5·3

It will thus be seen that fire protection was satisfactory in all divisions except the Kanára S. D., where the increase of six square miles noticeable in the area burnt was due to fires in betta lands. Under the betta rules, introduced during the year, the holders of betta lands are responsible for any fires in their bettas. In all the divisions the usual fire-protection measures of clearing fire traces were systematically followed. In three blocks of organized forests (Maingini, Goyar and Nagi) in Kárwár range, Kánara W. D., the fire protection was entrusted completely to the villagers and they were paid lump sums by the Divisional Forest Officer in person, and the headmen awarded turbans in cases of good work; the three blocks are reported to have been thus kept immune from fire during the whole year at a small cost of Rs. 65. Besides money rewards and presents, liberal free

grants of timber and free grazing were also given for good protection. Communal rewards and punishments were given as under :—

Division.	Number of villages			
	Rewarded with free or concession grazing for good general protection.		Punished for bad protection by enhanced grazing fees.	
	1916-17.	1915-16.	1916-17.	1915-16.
Kánara N. D. ...	2	58	28	21
Kánara E. D. ...	54	63	25	70
Kánara C. D. ...	16	1	16	16
Kánara S. D. ...	.....	.....	25	19
Kánara W. D. ...	33	6	27	80
Belgaum ...	98	77	166	239
Dhárwár-Bijápur ...	2	14	17	37
Total ...	205	219	304	482

Form No. 15 shows the number and origin of fires. The particulars of detection and disposal, compared with those of last year, stand as under :—

	1916-17.	1915-16.
Total number of fires reported	1,141 (100 per cent.)	976 (100 per cent.)
Number detected	152 (13·3 „)	96 (9·8 „)
Number compounded	125 (10·9 „)	68 (7·0 „)
Number prosecuted	27 (2·4 „)	28 (2·8 „)

Of the 27 cases prosecuted conviction was obtained in eight, the rest remaining pending in Magistrates' courts. The percentages of detection and disposal show much improvement over the previous year, and the Divisional Forest Officers report that detected cases were all suitably dealt with.

The statement showing areas enjoying continuous immunity from fire for a period of seven years, prescribed in Government Resolution No. 248 of 12th January 1904, is given below :—

Division.	Total forest area of the division in charge of the Forest Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for seven years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Percent. Acres.	Acres.	Acres.	Acres.	Acres.
Kánara N. D. ...	2,72,843	2,72,843	58,030 or 21·3	500	1,448	4,993	6,441
Kánara E. D. ...	3,75,223	3,75,223	3,24,775 or 86·5	6,000	2,539	346	2,885
Kánara C. D. ...	5,33,496	Accurate	figures not	available	...	...	12,936
Kánara S. D. ...	4,53,055	4,11,045	2,00,000 or 48·6	1,09,180	7,149	2	7,151
Kánara W. D. ...	5,30,398	1,30,808	1,11,127 or 85·0	52,994	1,813	3,151	4,964
Belgaum ...	4,07,138	4,07,138	48,500 or 11·9	48,500	6,079	6,703	12,782
Dhárwár-Bijápur.	1,85,712	1,83,407	1,32,638 or 72·3	2,297	4,231	1,379	5,610
Ratnágiri ...	12,054	2,546	.....	9,508	...	25	25
Total ...	27,69,919	.....	.....	...	...	...	52,794

Sind Circle.

Form No. 15 shows the number and origin of fires. It will suffice here to contrast results of the present year under report and the previous year :—

Division.	1916-17.		1915-16.	
	Number of fires.	Area burnt.	Number of fires.	Area burnt.
		Acres.		Acres.
Sukkur ...	52	1,285	55	3,644
Lárkána ...	22	375	47	1,247
Hyderabad ...	8	270	7	242
Jerruck ...	6	58	54	1,318
Total ...	88	1,988	163	6,451

The general improvement is due chiefly to a good inundation, there was less firing of forests for grazing, and the rain in March 1917 kept hill graziers from bringing their cattle to the riverain forests.

At the same time, as the figures show, there were other causes contributing to the successful fire protection of the year.

In Sukkur the average area per fire dropped from 66 to 25 acres; this is stated to be due to prompt action taken to extinguish fires. In Jerruck the average area decreased from 25 to 10 acres; the Divisional Forest Officer attributes this success to the value of the fire breaks supplied by traces cleared in all dangerous areas. New fire tracing work was carried out in the Lárkána, Hyderabad and Jerruck divisions. In Jerruck 9 miles 792 feet of jungle were cleared at a cost of Rs. 235 or Rs. 40 per mile for 50 feet wide traces and Rs. 20 per mile for 25 feet wide traces; 10 miles were traced free of cost.

In Lárkána fire lines 100 feet wide totalling three miles long were cut free of cost in the Lárkána, Sehwán and Kandiáro ranges.

In Hyderabad three-half mile lengths 100 feet wide were cut free of cost in the Hála and Sakrand ranges.

Firewatchers were entertained in the Mulchand, Sháhbunder and Tatta ranges of the Jerruck division.

The statement required by Government Resolution No. 248 dated 12th January 1904, regarding areas enjoying continuous immunity from fires for a period of seven years is given below for 1910-11 (*vide* Government Resolution No. 4081 of 22nd April 1908):—

Division.	Total forest area.	Area of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for seven years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open.	Closed.	Total.
	Acres.	Acres.	Acres. Per. cent.				Acres.
Sukkur ...	2,94,018	2,94,018	2,73,145 or 92·9	Newly formed kachas.	1,212	73	1,285
Lárkána ...	1,47,938	1,47,938	1,46,060 or 98·7		375	...	375
Hyderabad ...	1,65,035	1,65,035	1,64,435 or 99·6		231	39	270
Jerruck ...	1,44,542	1,04,229	87,309 or 83·8		36	22	58
Total ...	7,51,533	7,11,220	6,70,949 or 94·3		1,854	134	1,988

(c) *Protection from Cattle.*

Northern Circle.

The following statement shows the number and kind of animals impounded from open and closed forests respectively compared with previous years :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total for 1916-17.	Grand total for 1915-16.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Panch Mahâls	785	10,544	388	3,321	29	18	3,208	1,251	18	7	4,423	15,141	19,564	23,261
Surat	731	78	52	72	206	145	52	50	...	...	1,041	345	1,386	416
North Thána	...	1,507	...	418	925	504	22	...	...	...	947	2,429	3,376	2,987
West Thána	274	2,258	...	655	475	189	...	...	...	...	749	3,102	3,851	3,424
East Thána	193	3,439	35	349	459	383	...	...	...	...	687	4,171	4,858	4,097
South Násik	129	3,225	7	434	981	184	9	...	...	2	1,126	3,845	4,971	5,105
North Násik	...	4,153	...	515	3,494	868	1,234	1,060	...	95	4,728	6,691	11,419	12,790
Násik sub-division ...	...	1,947	...	148	4,209	477	1,735	...	...	23	5,944	2,595	8,539	8,893
Total, 1916-17 ...	2,112	27,151	482	5,912	10,778	2,769	6,260	2,361	18	127	19,645	38,319	57,964	...
Total, 1915-16 ...	1,283	27,985	347	5,010	12,546	8,499	3,557	1,466	69	211	17,802	43,171	...	60,973
Average for the past three years	1,314	23,466	346	4,037	12,535	6,440	4,230	1,835	66	120	18,491	35,698	54,389	...

Panch Mahâls.—The number of grazing offences was 843 involving the impounding of 19,564 cattle as compared with 864 involving 23,261 in the last year. But last year's figures were double those of the previous year and were excused on the two-fold ground that it was a year of scarcity causing an influx of outside cattle with turbulent owners and that to save fodder-grass strict protection was necessary. The Divisional Forest Officer is being asked to explain his figures of offences under all heads as this seems an instance in which lawlessness under exceptional circumstances threatens to become a habit unless promptly checked. It may be the increased figures indicate the necessary checking process.

Surat.—Figures are only remarkable for an unusual amount of trespass in Mándvi in June and July when all jungles are closed. The Conservator doubts the necessity of such a rule, but it is said to be of long standing and the number of cattle involved is not very great. The matter will receive attention in the coming season, change towards laxer control being undesirable without good reason.

North Thána.—Returns from this division are fairly normal showing an increase of 12 per cent. above the comparatively small average total of 3,000 cattle impounded, which was also the total of the last year. Of the total something over 50 per cent. are cows and bullocks from closed forest and 43 per cent. were goats from all forests. Of the increased number impounded 50 per cent. were buffaloes from closed forest and 50 per cent. cows and bullocks and goats, all from closed forest. The result is satisfactory, though as the Divisional Forest Officer points out better results are likely to accrue under the revised working plan.

West Thána.—The figures of this division correspond very nearly with those of North Thána; with more open country the total impoundings are slightly larger, *viz.*, 3,851 which is an increase of 10½ per cent. on last year's figure. Of the total 60 per cent. are cows and bullocks from closed forests while buffaloes from closed forests and goats from all forests each form 17 per cent. Of the 10½ per cent. increased impoundings, 6 per cent. are buffaloes from closed forests and 4½ per cent. are goats from all forests, representing an increase of 50 per cent. in the number of buffaloes impounded and 33 per cent. in the case of goats. These results taken in connection with materially improved fire protection are very satisfactory, and as mentioned under North Thána the revised working plan should show improved protection.

East Thána.—This division shows much the same conditions, but Igatpuri being open country swells the total impoundings which are 4,858, showing an increase of about 12 per cent. on last year's figures. Seventy-one per cent. of the total are cows and bullocks from closed forest, 17 per cent. are goats from all forests and 8½ per cent. are buffaloes, chiefly from closed forest. Eighty-seven per cent. of the increased impoundings are cows and buffaloes from closed forest. The Divisional Forest Officer explains the increase as due to cultural operations for which guards are yearly being made more responsible. In self-defence they become keener on keeping the closed forest free of cattle.

The reason is logical and probably correct. The revised working plan will increase this tendency.

South Násik, North Násik and Násik Sub-division.—All these charges show slightly improved results and call for no remark except that the present arrangement of closure in the Násik district handicaps any effort to protect the forests from cattle. As soon as possible the system of closure will be revised as part of the general revision of the working plan. Igatpuri, as formerly under Násik, is similarly afflicted.

Central Circle.

One thousand six hundred and seventy square miles, representing pastures and protected forests in charge of the Revenue Department, were open to all animals throughout the year. Of the 3,730 square miles in charge of the Forest Department, 616 square miles or 17 per cent. being organized areas under regeneration, were permanently closed to all animals, and 119 square miles or 3 per cent. of kurans were kept closed during the grass-cutting season but opened to grazing of horned cattle in the hot weather; 2,995 square miles or 80 per cent. were open to all animals but browsers throughout the year.

The following statement compares the numbers and kinds of cattle impounded from open and closed forests, the total impoundings for the jurisdiction of the Commissioner, Central Division, being 43,087 as against 46,820 in the previous year; from open areas the figure is 16,680 as against 14,491, from closed areas 26,407 as against 32,329:—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	
East Khándesh	529	5,537	156	1,878	414	377	1,927	410	26	35	3,052	8,237	11,289
West Khándesh	111	5,163	9	857	1,569	...	2,699	...	66	128	4,454	6,148	10,602
North Khándesh ...	32	4,957	22	721	171	121	...	...	...	3	225	5,802	6,027
Poona	653	2,905	61	319	3,297	654	1,946	230	14	57	5,971	4,165	10,136
Sátára	5	1,682	...	321	743	50	2,230	2	...	...	2,978	2,055	5,033
Kolába	5	2,536	32	661	452	166	...	...	...	...	479	3,363	3,842
Total, 1916-17 ...	1,335	22,780	280	4,757	6,646	1,368	8,802	642	106	223	17,159	29,770	46,929
Total, 1915-16 ...	2,131	27,859	341	4,050	7,706	1,208	4,947	1,949	117	258	15,242	35,324	50,566
Average of past three years.	1,491	23,489	195	3,516	9,802	2,002	7,352	1,094	219	253	19,061	30,356	49,417.

The net decrease in impoundings for the circle is 3,637, those from open forest having risen by 1,917, those from closed forest fallen by 5,554. The only points that call for remark are that in every division but Kolába there has been a considerable decrease in the number of horned cattle impounded, while sheep and goat trespass, these animals being forbidden in any forest in charge of the department, has largely increased in Poona and West Khándesh and slightly increased in East Khándesh. That impoundings of horned cattle from closed areas should have been less than those of the previous year, may be put down partly to the abundance of grass after a favourable monsoon, partly to efficient protection by the forest staff, while the fact of the same animals having had to be impounded in less numbers from open forest indicates that their owners realized that it was better to pay the fees at once with a good grace than to refuse to do so, and thereby have to pay pound fees and compensation for each occasion of trespass, and inevitably the grazing fees as well later on; at the same time there are still many attempts on the part of the people to evade payment, for in Poona no less than 17,708 animals had to be charged for at double rates, they being caught in the forests after the prescribed date and their owners having declined to pay until they were actually caught. In the same division it is estimated that quite 10 per cent. of the cattle for which fees were eventually paid were caught trespassing, and had to be taken to villages before payment took place; the owners, of course, when the trespass was in open forest, could avoid impoundment by paying, but the unnecessary labour thrown on the forest staff was enormous. The effect would be salutary if the rules could be so amended that owners who pay voluntarily within the prescribed date be charged the single fee, while those who evade payment until caught be charged double.

Comparison of the number of horned cattle impounded with the number admitted to graze in forests free or on permit is interesting, the figures being 29,160 and 8,59,337, or slightly over 3 per cent., proof positive that no excessive hardship is caused to the public by the protective measures enforced. The hardship is all on the State, for in this circle most of the forests are hopelessly overgrazed and that too by useless animals; were none but such as are of value kept and stall feeding adopted, the advantage to both sides would be great, impoundings would decrease and the forests be more quickly regenerated. The grazing rules, it is true, allow of limitation of numbers of cattle to be admitted to given areas, but so long as the cattle exist in such quantity facilities have to be provided somehow, and the rules remain a dead letter. The whole question is now before Government in the form of a suggestion made by the Inspector General of Forests as to the possible superiority of the Central Provinces' system, and under which differentiation of fees according as the cattle are kept for agricultural purposes or for profit tends both to reduction of useless animals and to less pressure on the forests, and that too with no decrease in revenue obtained.

Southern Circle.

The details of area open and closed to grazing are given in Form No. 16. An abstract is given below :—

Year.	Closed to all animals for whole year.	Closed to all animals for part of year.	Open to all animals (except browsers) for whole year.	Open to all animals for whole year.
	Per cent.	Per cent.	Per cent.	Per cent.
1916-17	20·9	0·3	73·2	5·6
1915-16	15·3	0·3	78·8	5·6

The above figures do not, however, furnish an accurate comparison, as the numbers furnished by the Divisional Forest Officers in previous years were not quite accurate.

The number of cattle that grazed in the forests during the past three years are compared below :—

Year.	Horned cattle.	Sheep and goats.	Other animals.	Total.
1916-17	488,167	1,386	477	490,030
1915-16	468,991	6,328	704	476,023
1914-15	462,441	2,135	739	465,315

The following table prescribed in Government Resolution No. 4081 of 22nd April 1908 gives the comparative details of cattle impounded for illicit grazing :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Total open and closed for 1916-17.	Total open and closed for 1915-16.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Kánara N. D. ...	58	1,753	12	471	...	37	...	...	...	...	70	2,261	2,331	1,975
Kánara E. D. ...	...	887	...	195	28	121	...	1	...	...	28	1,204	1,232	986
Kánara C. D. ...	12	120	...	21	...	190	...	9	...	...	12	340	352	333
Kánara S. D. ...	71	49	6	14	63	...	8	...	...	...	148	63	211	483
Kánara W. D. ...	...	255	...	46	...	...	...	...	...	...	...	301	301	430
Belgaum	...	1,408	...	943	...	...	...	758	...	9	...	3,118	3,118	5,202
Dhárwár-Bijápur..	89	1,468	10	285	...	1,240	4	1,080	...	25	103	4,098	4,201	3,823
Ratnágiri	...	6	...	...	...	...	...	...	...	...	...	6	6	41
Total, 1916-17 ...	230	5,946	28	1,975	91	1,588	12	1,848	...	34	361	11,391	11,752	...
Total, 1915-16 ...	300	6,283	109	2,741	530	2,370	1	920	...	19	940	12,333	...	13,273
Average of past three years.	397	6,990	149	2,527	559	2,449	97	1,132	3	24	1,207	13,122	...	...

The impoundings have on the whole decreased in all divisions except Dhárwár-Bijápur, where those of sheep in closed areas rose from 222 last year to 1,080 this year on account of persistence in contravention of rules. The people are, however, beginning to learn that cattle are not to be grazed in closed forest.

Sind Circle.

93·9 per cent. of the forest area was open to the grazing of cattle except goats and camels. The latter animals were admitted to 561·72 square miles of forest or 64·8 per cent.

Impoundings.—There has been a general decrease in the number of impoundings in the forests of the province as compared with the figures of last year and those of the past three years; the table at the end of this paragraph shows details. In Lower Sind this was due to the exceptionally favourable condition of rainfall in the Kohistán hill tract, which resulted in large numbers of cattle remaining away from the forests throughout the year. In Lárkána the decrease is ascribed to the energy displayed by subordinates in reporting illicit grazing cases previously, while in Sukkur it is stated that the herdsmen found the yearly grazing fees much cheaper than those levied under the bi-monthly system and registered most of their cattle. Temporary cattle pounds for the control of gormal (semi-wild cattle) were opened in certain forests frequented by these animals.

In Sukkur 155 cattle were caught, the revenue from fees being Rs. 171 and the expenditure Rs. 115. In Lárkána 12 cows were caught in the Amrot forest, fees being Rs. 12 and expenditure *nil*, while in Hyderabad 126 cows and calves were caught in nine pounds in the Hála and Sakrand ranges and Rs. 134 recovered from their owners, the pounds having been managed without expense by literate sub-rangers or guards in addition to their own duties.

The result is still not very satisfactory. The animals, though easy to approach are shy and difficult to catch. They are animals for which no grazing fees are paid, and their condition of gor or semi-wildness is brought about by their being turned loose by their owners to live in the forests night and day. The remedy is to insist that all cattle should be driven by herdsmen at night to their folds by their owners, the people avoid this in order to avoid paying fees during the period when their animals are out of milk. The help of the Revenue Department must, and will be sought. Injury is chiefly done to the young coppice shoots by browsing, and to seedlings by trampling.

Newly exploited coupes were fenced with waste branchwood. The total length of new fences put up amounted to 349½ miles.

Repairs to existing fences were carried out over 692¾ miles. This work was done by forest guards free of cost with the help of maldars and coupe contractors. Special effort was made this year to start fencing coupes containing coppicing species directly felling operations began.

The animals impounded during the year compared with those of the preceding year are shown in the subjoined table as required by Government Resolution No. 4081, dated 22nd April 1908 :—

Impoundings.

Division.	Cows and bullocks.		Buffaloes.		Sheep.		Goats.		Camels.		Other animals.		Total.		Total of open and closed.	
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	1915-16.	1916-17.
Sukkur	606	882	371	509	76	...	1,687	1,629	387	481	52	166	3,179	3,647	7,201	6,826
Lárkána	129	387	225	185	...	39	166	1,152	104	420	...	15	624	2,198	4,113	2,822
Hyderabad ...	138	554	197	463	...	....	296	394	65	186	8	141	704	1,738	2,796	2,442
Jerruck	397	479	215	372	21	39	83	390	83	393	95	153	894	1,826	4,048	2,720
Total, 1916-17.	1,270	2,302	1,008	1,529	97	78	2,232	3,565	639	1,480	147	475	5,401	9,409	...	14,810
Total, 1915-16.	1,575	3,549	595	1,589	4	366	2,796	4,636	537	1,954	185	372	5,692	12,466	18,158	...
Average of the past three years.	1,266	3,246	512	1,591	175	212	3,391	4,152	528	1,282	123	260	5,994	11,079	...	...

(*d*) *Protection against Injuries from Natural Causes.*

Northern Circle.

In Surat Rs. 343 were spent by employing parties for creeper cutting. Perhaps special circumstances of the locality justify this, but careful check is required; for, as in the case of broad-casting seed, the amount of work done is very susceptible of exaggeration. Generally the cut creepers are a valuable criterion that the protective officer has passed that way, and it is extraordinary the amount of creepers that can be cut in that way, making extra expense undesirable.

In the Dahisar range of North Thána and the Bassein range of West Thána small contracts were given to men who cut the creepers for the resulting firewood. In the latter range Rs. 1,388 were realized in this way. In all divisions creepers are reported to have been cut by guards.

In the Umbergaon casuarina plantation 20,000 healthy seedlings were destroyed by a small moth. Specimens were sent to Dehra Dun for identification and advice.

Central Circle.

In all divisions cutting of climbers was carried out by guards. In Kolába coupe contractors were made to clear out *Euphorbia* or other growth that interferred with regeneration. In Poona eradication of prickly-pear from babul coupes took place at Government expense, 20,250 cubic feet being removed at cost of Rs. 36; and a further useful work consisted in the freeing of some 15,000 seedlings in teak coupes which were in danger of being suppressed or choked by surrounding growth. Both in Poona and Sátára construction of 'tals' went on; in the former over one running mile being built at a cost of Rs. 101, in the latter 211 new 'tals' were built for Rs. 45; the value of the work in preventing erosion and in forming suitable plots for artificial plantations behind the 'tals' was very apparent.

Southern Circle.

In Kánara W. D., a strip varying from 15 to 40 feet wide along the greater length of the Kodibág casuarina plantation was eroded by the heavy tides of June. Over 100 trees came down. The Public Works Department are taking steps to prevent further erosion by putting up "groins" in the sea and a dam of sand and dry stones inside the plantation at the most dangerous spot, where also, further in, a large area of rice land is threatened. Wild elephants and pigs did some damage to forests in the Supa and Dándeli ranges. Defoliating insects (*Eupterote castanea* and *Hyblœa puera*) again attacked the teak over a considerable area in the Kánara Northern and Central Divisions. In some of the teak nurseries in Kánara E. D., many of the largest plants were attacked and destroyed by the larvæ of beetles. In Kánara S. D., the casuarina trees in Kasarkod and Haldipur suffered to a certain extent from caterpillars of *Arbela guadrinotata*; the damaged trees were cut and sold. Prickly-pear, which is a pest in the Bijápur forests, was removed by villagers as far as possible without extra cost to Government. *Lantana* continues to spread in the Haliyál teak pole area in Kánara N. D., and in parts of Dhárwár, and it is difficult to check its growth. The floods of the Krishna and other rivers of Bijápur, which were very high this year, did some damage to babul kurans by uprooting the trees on the banks. The planting of zili (*Sesbania ægyptiaca*) along the banks is being continued with a view to check erosion as far as possible.

Sind Circle.

The weather in the cold season was not severe on the whole and young plantations were not seriously injured by frost in any division. Rats were troublesome, and did some damage by gnawing the stems of young trees below the ground. Porcupines also gave trouble in the plantations of tali (*Dalbergia Sisoo*) in the Sukkur division where they tore the bark off young stems; a spring trap is being experimented with a view to get rid of these animals which usually do damage at night. The defoliating caterpillars appeared in enormous numbers in the southern forests of the Jerruck division, and the damage done by them was considerable. Large trees as

well as the smallest seedlings were attacked, but the injury caused actual loss only in the case of the latter. Kamo creeper cutting was carried out by the staff, and in the Jerruck division also by contractors in a large area under thinning operations in all ranges. Small contracts were also given or the removal of creepers in some areas in this division.

4.—Sylviculture.

(*a*) *Natural Reproduction.*

Northern Circle.

(*i*) *From seed.*—While most divisions made good efforts, by tending, at establishing natural seedlings which otherwise would have perished, only the three Thána Divisional Officers record exact extent of operations and results. These were very encouraging, percentages of successes varying from 25 to 50 per cent. as a rule, and occasionally as high as 90 per cent. All Divisional Forest Officers are being asked to record similar data in future.

(*ii*) *By coppice.*—This is everywhere good, though naturally less vigorous above than below ghâts. Everywhere more or less tending is necessary for its success.

Central Circle.

Conditions as regards rainfall were favourable, and reproduction by seed, that is to say in so far as germination and the first appearance of seedlings was concerned, left little to be desired. The difficulty is to ensure the seedlings withstanding the effects of drought, weeds, fires and grazing, and that is where artificial measures come in. Reproduction by coppice also, so far as nature is concerned, is entirely satisfactory, though in this respect too heavy toll is taken by fires and grazing. The one exception to good natural reproduction either by seed or coppice is found in the case of the anjan in Khándesh, where not only can a good seeding not be counted on more than once in three years, but also a very large proportion of felled trees fail to coppice at all. The absence of regeneration in coupes was much commented on by the Inspector-General, who in the light of Central Provinces experience gave valuable advice as to experiments which should be carried out, both as regards preparation of the soil to form a more favourable seed bed, and as regards season of felling which may possibly affect coppicing, and adoption of the system of felling the trees at varying heights above ground instead of as is now done flush with it, for, as he pointed out, the standing growth afforded ample evidence that pollarding the anjan almost invariably produced good results.

In Poona and Sátára the natural extension of sandalwood is very noticeable in some localities, affording the promise of good revenue in years to come from this most valuable species.

Southern Circle.

(*i*) *From seed.*—The year was again very good for teak, the other valuable species such as matti, honni and sissum also seeding well. As the year 1915 was excellent for teak seed, the vast number of seedlings, which lay dormant in 1916, have come up in the rains of 1917. The work of weeding and mulching the natural seedlings has been receiving special attention with satisfactory results everywhere.

(*ii*) *By coppice.*—Regeneration by coppice was, as usual, good in all the forests worked under this system, though, unfortunately, fires again devastated many of the old coupes in the the Khánápur Central and East ranges and destroyed both seedlings and coppice. Where the young growth gets a fair chance, it does splendidly and with a little help soon establishes itself. In Kánara W. D. it was noticed that jamba coppice was very susceptible to fires, in some places whole groups of it being completely burnt. The stumps, however, are again coppicing. Mr. Hodgson, Divisional Forest Officer, Kánara N. D., is experimenting with regard to his observations on the effect of fire on teak seedlings, mentioned in the last annual report, and his report is awaited.

Sind Circle.

(*i*) *State of existing reproduction.*

The area flooded was 4,47,753 acres compared with 2,71,093 acres of the previous year. The rains in Lower Sind were also plentiful. In consequence natural regeneration from seed was good everywhere. Seed had been scattered profusely throughout the forests of Lower Sind by the large number of famine-stricken cattle which grazed in them and on the babul pods prior to the inundation season of 1916, and in Jerruck division the forests of Viran, Sonda and Hillaya were entirely closed to browsers in order to take full advantage of the extensive natural seeding above referred to. The only setback in Lower Sind was due to the fact that some areas under regeneration received such a depth of flood water that both natural seedlings and coppice shoots died.

(*ii*) *Measures for inducing or aiding reproduction.*

There was no felling or girdling of inferior species with a view to open the canopy as this is not necessary under the system adopted, scorched trees not yet dead were cut back in three divisions for fresh coppice shoots. All debris left in coupes after felling was burnt where this could be done without endangering the forest, in order to provide a good seed bed for future babul regeneration, and areas not fully stocked naturally were broad-casted with seed after the inundation season.

Thinnings in natural crops were carried out in all divisions in babul areas; the details are as follows:—

Division.		*Material.*	*Price realized.*
Lárkána	...	390 trees.	Rs. 310.
Hyderabad	...	19,030 c. ft. 223 pieces.	Not yet sold.
Jerruck	...	Over 765 acres.	Rs. 9,255.

(*b*) *Artificial Reproduction.*

Northern Circle.

Regular plantations.

The only repular plantations are of casuarina in North and West Thána, all under the Divisional Forest Officer, North Thána. Rs. 2,458 were spent on four plantations and planting up 27 acres; 10,000 plants were put out and are doing well.

Cultural operations.

Panch Mahâls.—A statement shows that 385 maunds of seed, chiefly *Terminalia tomentosa* and *Tectona grandis*, were dibbled in blanks in all ranges at a cost of Rs. 206 but the only result recorded is that the germination of teak was not satisfactory. From the Godhra nursery 10,745 teak and 2,155 plants of other trees were transplanted into exploited coupes. They were subsequently mulched and shaded with recorded good result.

Surat.—In the Bulsár range 69,500 plants were raised in the Welwach nursery and 32,025 in the Delwada nursery at a cost of Rs. 319 and Rs. 50 respectively and 24,175 teak, 8,700 tanach, 4,500 shisam and 100 beo were transplanted to old coupes without recorded result. In the North Dángs 15,000 teak and 2,300 shisam were planted out, of which 9,845 teak and 1,500 shisam were living in the month of May, when there were as many more seedlings ready to plant out.

All three Thána divisions showed even better results but detailed record conveys very little and abbreviated record must fail to do justice. It is rightly recorded in the divisional reports and is appreciated there.

South Násik division has not had a chance owing to the constant change of officers, but will probably do well though under a climate less favourable for such operations.

North Násik and Násik Sub-divisions have a yet more difficult task and will probably do well to limit themselves to natural seedlings or those raised

by dibbling. For instance, in the present monsoon Málegaon had little over one inch of rain up to the end of August. Not much can be done on that.

Central Circle.

Regular plantations comprise the restocking of casuarina coupes in Kolába by planting out seedlings grown in nurseries, and by sowing of seed in the babul coupes in Poona and East Khándesh. Results were generally satisfactory.

Cultural operations received much attention in Poona, Sátára and Kolába, and it is clear that a system has now been found which shows the possibility of obtaining definite results, which has never been the case in the past, and of greatly adding to the value of these forests in the future. The work which had its inception in Kánara lies in the mulching and tending of young plants, either the natural ones which spring up with the monsoon, or artificial ones put out from nurseries. The system being more or less in its infancy, precisely the best methods of work are at present a matter of experiment, one division, Poona, maintaining that raised mounds and beds are essential for success, while Sátára and Kolába claim equally good results from level beds or pits; probably the main factors are the thorough working of the soil before planting and the amount of tending that the plants receive in the ensuing hot weather. What can be said with certainty is that the work has been taken up with enthusiasm in all three divisions with so far much success, that there is enormous scope for its extension, and that it has reached a stage at which considerable expenditure on it in future will be justified. Kolába records the successful establishment of 55,000 plants at the close of the year, while in Poona it is said that of 80,000 seedlings, mostly teak, 70 per cent. survived including many which had been temporarily cut back by fire; both most creditable results. Sátára gives no actual figures, but the Conservator himself saw the good work done in several places in that division. Khándesh at present has not been uniformly so successful in the matter, nor is there so much scope for it there as for other measures of regeneration; still of 65,000 seedlings treated in North Khándesh 25 per cent. are said to have survived.

Southern Circle.

Regular plantations.

The *casuarina* plantations on the Kánara and Ratnágiri coast were extended by 37 and 3 acres, respectively, at a total cost of Rs. 4,464. All the plantations were doing well except the one at Harwáda in Kánara C. D., where a number of plants, planted two to four years ago, have died.

Cultural operations.

Kánara N. D.—In the pole forest area thousands of natural seedlings found in the newly exploited coupes, were weeded and mulched. Junglewood species were planted in areas where only pure teak seedlings were found, as teak thrives better mixed with other species. Some three lakhs of plants were transplanted in the Kulgi range with good results. In the high forest about 30 acres were planted up with teak, honni and sissum.

Kánara E. D.—The planting and tending of teak and junglewood seedlings was carried on as usual in the coupes newly exploited. Teak and junglewood seed were dibbled in on patches where rubbish had previously been burnt, with fairly good results.

Kánara C. D.—About 230 acres of forest were sown with teak seed. Thousands of teak and matti seedlings were planted in felled areas.

Kánara S. D.—The *casuarina* coupe cut in 1915-16 was planted up with seedlings raised in the nursery. Teak and junglewood seed was dibbled in in suitable places in the newly exploited coupes.

Kánara W. D.—Natural seedlings were all successfully tended as usual by mulching and freeing them from interfering growth. Teak and junglewood seed were sown in suitable patches. A big nursery was made at Rengani in Gund range, whence teak seedlings were transplanted. The matti plantations made in flat blank areas in the Kadra range last year have survived in about 85 per cent. of cases where the soil was mulched and in every case where this was not done the plants died.

Belgaum.—Natural teak seedlings were weeded, mulched and shaded, and replanted in the case of failures. Teak, junglewood and sandal seed was collected and sown in different places and seedlings of all species were transplanted from nurseries.

Dhárwár-Bijápur.—Seeds of different kinds were sown in all the five ranges of the division. Sandal seed, sown broadcast and dibbled in under the shelter of bushes, was successful in a few cases. Sowing and planting was continued in conjunction with, and supplementary to, natural reproduction by coppice. A few of the seedlings raised last year were destroyed by fire. The agriculture—combined with—forestry operations could not be carried out in the Chickgulbal, Ingalgundi and Mamdápur coupes of the Bijápur sub-division as the area was under water for several months.

Ratnágiri.—The nurseries and plantations at Harnai, Dápoli, Dhámápur and Tondavli were maintained with due care at a total cost of Rs. 412.

Sind Circle.

Regular plantations.—The regular plantations in Sind are those of tali. There were 301 acres under regular plantation at the commencement of the year, to these 2 acres were added in Lárkána and 1 in Hyderabad, making a present total of 304 acres. The details are :—

Sukkur.—Kot Sultan plantation irrigated by Persian wheel. Six plants of *Eucalyptus Stuartiana* were added during the year of which three died ; there were few casualties among the tali plants. Expenditure Rs. 293.

Zarkhel plantation irrigated by a water channel with distributaries from the Sherwáh. Expenditure *nil.*

Rahuja garden.—Many plants of species of citrus were put out this year, and orders issued to graft varieties of orange on to these. The whole garden has been well weeded, and some of the old tali trees thinned to make room for other trees not indigenous to Sind. All fruit trees did well except the vines which have got old. A corner of the garden has been cleared at the Collector's request for the introduction of the wild hill olive (*Olea cuspidata*). If this species thrives on the plains it is proposed by this department to graft on to it the European olive (*Olea Europea*) which has a much better yield of oil and which having failed to ripen its fruits at Siálkot in the Punjáb is not likely to succeed from seed in Sind. Grafts can, it is believed, be obtained from Kashmir. The expenditure on the Rahuja garden during the year was Rs. 1,529.

Hyderabad.—In Hyderabad one acre was added to the Shah Makai plantation for tali ; the area now stands at six acres and the yearly expenditure was Rs. 86.

The Monument, Miani bungalow and the small gardens of mango and divi divi in the Miani range were maintained at a cost of Rs. 1,069.

Jerruck.—The regular plantation for tali in the Jerruck division is at Khatro, the area being 23 acres. The plants are doing well and were pruned during the year. Means have been devised to secure irrigation in future for most of the plantation by flow from a small canal *ex* the Fuleli. In this plantation tarwad (*Cassia auriculata*) was sown in 1912 ; the plants are at present some 20 feet in height in this alluvial soil, and specimens of bark have been sent to Maihar to be tested for tannin.

Cultural operations.—One thousand five hundred and fifty-six acres of uplands were treated under the system of agriculture with forestry in all divisions, the assessment paid being Rs. 2,981 which was credited to the Revenue and Public Works Departments by book transfer. Only in the Jerruck division where in the Katiar range Mr. Nenumal has shown good supervision can the results be called really satisfactory. Tarwad seed germinated in the Bahman forests of Lárkána and the seedlings are said to be doing well.

In exploited coupes 11,777 acres were broadcasted with 3,126 maunds of babul and kandi seeds ; results in riverain areas after a good inundation were on the whole good, but a second flood late in August rather upset the calculations of some of the Rangers and covered up the germinated seeds. These

were resown except in a few arrears which will be sown up this year. Attention was paid to the resowing of coupes where germination had not succeeded and kachas, high enough to keep the resultant seedlings, which had silted sufficiently above flood water, were also broadcasted with seed especially in the Lárkána and Jerruck divisions.

(c) Operations for the Improvement of the Growing Stock.

Northern Circle.

Panch Mahâls.—In two blocks of Godhra, one in Kálol and one in Hálol, badly grown teak were cut back in formerly exploited coupes and branches of other species threatening teak were cut back.

North Thâna.—Seventy-nine coupes formerly exploited were thinned in favour of teak at a cost of Rs. 2,333. The pick of the material was sent to railway and bunder depôts while the inferior material was sold locally. The total amount thus realized was Rs. 4,825.

East Thâna.—Similar thinning was done in 40 coupes at a cost of Rs. 950. The best injaili and teak went to the Military and the balance sold locally. Gross realization amounted to Rs. 3,096.

Central Circle.

It is under this heading that the teak bearing forests of Khándesh come into prominence, not so much to give a record of work carried out as to emphasize its necessity in future. The forests are now full of stunted, unsound, misshapen trees of neither present nor future value, and their removal and replacement by sound coppice was a point on the need for which the Inspector-General of Forests laid great stress; in theory removal in the past has been supposed to be done by contractors, at any rate so far as the larger trees are concerned; in practice contractors knowing the material to be unsaleable have left the trees standing; the new working plan will provide for each coupe being taken in hand after the contractor has finished with it, and for all unsound growth large or small being cut back at departmental expense. Needless to say, if the work is to be of full value fires must be kept down.

Southern Circle.

In all divisions the usual operations were conducted on a larger scale than ever before: creepers were cut, broken trees cut level with the ground, inferior species girdled and improvement fellings made; the bamboos interfering with the growth of teak were also cut; thinnings, cleanings and prunings were carried out in all the *casuarina* plantations on the Kánara and Ratnágiri coast.

Sind Circle.

Kamo creepers (*Phyllanthus reticulatus*) were cut in all divisions and the khabar creeper (*Salvadora Persica*) also in the Jerruck division. Thinnings were undertaken in all divisions this year and in Jerruck on a fairly large scale, the operations extending over 765 acres and the amount realised being Rs. 9,255.

In Hyderabad mutilated trees were cut back under the orders of the Deputy Conservator.

5.—Exploitation.

(a) System of Management.

(i) Major Forest Produce.

Northern Circle.

Statement of area of various systems of exploitation in force with percentages:—

Division.	Method of clear felling by compartment.		Uniform Method.		Group Method.		Selection Method.		Simple Coppice.		Coppice with standards.		Method of Improvement.		Unworkable area and area not under Working Plan.	
	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.
Panch Mahálś ...	...	...	114	34·4	...	...	...	...	...	...	164	49·4	26	7·8	28	8·4
Surat	...	...	...	...	...	...	...	...	...	...	68	9·4	159	22·0	497	68·6
North Thána ...	...	...	397	94·4	...	...	16	5	...	...	...	...	...	...	2	0·6
West Thána ...	...	...	309	95.9	...	...	...	...	...	...	...	...	...	...	13	4·1
East Thána ...	...	...	396	87·3	...	...	...	...	...	...	...	...	58	12.7	1	...
North Násik ...	...	...	...	...	...	...	...	...	...	...	244	49·5	47	9·6	203	40·9
South Násik ...	...	...	...	...	...	...	247	71·6	...	...	71	20·6	...	...	27	7·8
Násik sub-division.	4	1·6	...	...	...	...	...	...	...	...	29	11·2	...	...	225	87·2
Total ...	4	...	1,126	34·6	...	...	263	8·1	...	...	576	17·7	290	9·0	996	30·6

Clear fellings.—These were limited to ten babul coupes of Násik subdivision in the first instance. Subsequently, with the approval of the Inspector-General of Forests, the standards in the coupes of the year in the three Thána divisions were felled in anticipation of the introduction of the revised plan which is under preparation and will introduce the uniform system. Therefore, in the statement the whole of these Thána forests are carried from the heading "Coppice with standards" to that of "Uniform method". A similar change in treatment of the forests of the Eastern Mahál under the authority of the Superintendent of Working Plans should have been shown in the statement in last year's Administration Report.

Selection fellings.—These were confined to the below-ghát forests of the South Násik division.

Coppice with standards.—The forests of the Western Mahál were still included under this method but its application on sylvicultural lines so approximates to clear cutting that the uniform method will be introduced in the coming season except in the Hálol range, the conditions of which require further study. The forests of the Mándvi range of the Surat district and the above-ghát teak forests of North and South Násik divisions and Násik subdivision come under this heading.

Method of improvement.—This is prescribed in the North and South Dángs and Bulsar-Chikhli of the Surat division also the anjan forests of North Násik.

Unregulated fellings.—These, chiefly for revenue, take place in the Central Dángs of Surat, but must shortly give place to some method for improvement.

Central Circle.

Clear fellings were undertaken in babul and casuarina forests only, 22 babul coupes aggregating 319 acres being felled in Poona and East Khándesh, and 1 coupe of 1 acre of casuarina in Kolába.

Improvement fellings comprising mainly a system of selection of overmature and unsound trees, were carried out in the Sátpuda forests of East and North Khándesh, in the Umarpata, Deomogra, Dhulia and Pimpalner forests of West Khándesh, on the Mahábleshwar and Mátherán plateaux of Sátára and Kolába, and in the Akola and Lonávla forests of Poona. The selection system, pure and simple, is nowhere in force in the circle.

Coppice fellings took place in the teak forests of Poona, Sátára and Kolába, and of the Edlábad forests in East Khándesh.

Of the total organized areas of the circle amounting to 2,301 square miles, 33 square miles are under clear fellings, 1,516 under improvement fellings, and 752 under coppice with standards.

Unregulated fellings in forests consisted solely of extraction of material for free grants in all divisions, of clearance of dead and dying trees in babul forests, and of clearance of rides and views at Mahábleshwar and Mátherán; outside forests, of the sale of royalty trees in occupied lands in all divisions and of reserved trees in unassessed Government waste in West Khándesh.

Southern Circle.

The systems of management were the same as before.

Clear fellings.—These were carried out in the coast casuarina plantations of Kánara on an area of 17 acres realizing Rs. 147 per acre and in babul forests of Bijápur, where two coupes measuring 19 acres in all were exploited, realizing Rs. 72 per acre.

Selection fellings.—The following operations were carried out in the Kánara divisions in accordance with the provisions of the sanctioned working plans :—

Division.	Number of trees cut.		
	Teak.	Blackwood.	Junglewood.
Organised Area.			
Kánara Northern	1,831	73	869
Kánara Eastern	3,267	.....	1,119
Kánara Central	107	60	1,300
Kánara Western	687	19	219
Total, 1916-17 ...	5,892	152	3,506
Total, 1915-16 ..	9,501	469	3,794

Exploitation in Gund range of Kánara W. D. is somewhat in arrears in respect of junglewood for want of a road but, in view of the progress made in road construction up the Kálinadi valley, the girdling operations this year have been extended to nandi and matti in the hope that, by the time the felling is due, it will be possible, and will pay, to bring these timbers down to Kodibág depôt. In Kádra range high forests, besides teak, the usual junglewood species were exploited.

Improvement fellings.—These were carried out as under :—

Division.	Number of trees cut.		
	Teak.	Blackwood.	Junglewood.
Kánara Northern	10,373	1,749	3,081
Kánara Eastern	3,424	.....	56
Kánara Western	439	.....	3
Total, 1916-17 ..	14,236	1,749	3,140
Total, 1915-16 ...	11,321	750	573

Coppice fellings.—This method of exploitation, which is most common, was adopted in all the divisions except Ratnágiri as under :—

Division.	Area in acres.	Revenue per acre.		Quality.
		1916-17.	1915-16.	
Organized area.		Rs.	Rs.	
Kánara N. D.	1,710	94	118	Teak poles, timber and fuel.
Kánara E. D.	1,368	19	20	Teak poles and fuel.
Kánara C. D.	258	23	22	Do. do.
Kánara W. D.	681	22	25	Do. do.
Belgaum	78	68	202	Logs, poles and fuel.
	2,200	71	85	Railway fuel.
Total, 1916-17 ...	6,295	59	...	
Total, 1915-16 ...	5,833	...	65	
Unorganized area.				
Kánara S. D.	538	12	17	Timber and fuel.
Kánara W. D.	356	37	8	Railway fuel.
Belgaum	3,501	5	4	Local fuel.
Dhárwár-Bijápur	1,672	5	22	Poles and fuel.
Total, 1916-17 ...	6,067	7	...	
Total, 1915-16 ...	6,768	...	10	

The revenue realized per acre shows a decrease below that of last year owing to dislocation of business caused by the war and consequent want of bidders for standing coupes.

Unregulated fellings.—In all the divisions, except Kánara Western division and Ratnágiri, dead sandalwood trees exploited from various jungles were converted into billets of different sorts, which fetched a revenue of Rs. 46,482 as against Rs. 36,761 in the previous year.

In the Kánara Eastern and Southern divisions and Dhárwár-Bijápur, 721 junglewood trees exploited in various jungles fetched Rs. 741.

In the Kánara Western and Belgaum divisions extraordinary fellings were made in the most suitable areas for supplying the following material to the Military Department, Bombay, for war purposes :—

Junglewood poles ...	21,131 No.
Junglewood logs ...	9,593 c. ft.
Mango planks ...	4,620 running feet.
Bamboos of sorts ...	201,150 No.

The value of the material was not fully credited during the year.

Sind Circle.

Clear fellings with some reserves to provide large timber.—Seventeen thousand four hundred and eighty-eight acres of forest were exploited under this system in accordance with the provisions of the working plans, as compared with 16,691 acres during the previous year. After exploitation, the branchwood not required for the fences was burnt where feasible and advisable, and the soil resown with babul and kandi seed either broadcast or in drills. With the permission of Government the maximum girth of babul reserves was increased from 25″ to 36″, it having been found that there were few small trees, and that these could not attain the girth of 60″ (the minimum required for a

good log by the Gun Carriage Factory at Jubbulpore) during the short rotation of 30 years. The stools of kandi and baban were carefully coppiced everywhere.

Improvement fellings.—These include the cutting back of material in burnt areas, and the levelling of stumps of trees illicitly cut.

The statistics are as follows :—

In Sukkur 204 acres of burnt area were worked over, the material realizing Rs. 600;

In Lárkána 348 acres of burnt area were exploited, the material realizing Rs. 4,400;

In Hyderabad the cutting back of mutilated trees yielded 1,081 maunds of fuel which will be sold during the ensuing year;

In Jerruck 82 acres containing a little burnt wood were worked over, this burnt material yielding Rs. 80.

Unregulated fellings.—These include the removal of wood in erosion fellings, all wood actually dead whether standing or fallen, free grants, and wood cut to meet the urgent demands of the Public Works and other departments. Statistics are as follows :—

In Sukkur 4,829 acres were cleared against 1,292 acres in the previous year; this included the site of the Quetta Military Farm near Ruk and a little area cleared for the central passage of the Indus.

In Lárkána owing to good competition 808 dead and fallen trees yielded Rs. 3,525. The area cleared for fear of erosion was only 35 acres against 247 acres of the previous year.

In Hyderabad the area cleared was 141 acres against 107 acres of the previous year.

In Jerruck 85 dangerous trees along the river frontage of Budka realised Rs. 100. Forty-two dead stumps in Khatro and 120 dead stumps in Hilláya yielded Rs. 60, and 374 acres threatened with erosion were exploited in the forests of Ach Marho and Alláhbux in Shah Bunder range (being coupes prescribed for 1917-18) and yielded Rs. 4,070. Two thousand seven hundred and fifteen babul and 6,945 lye-stakes were cut by the Public Works Department at a cost to them of Rs. 966.

(ii) Minor Forest Produce.

Northern Circle.

This is worked without fixed plan as public demand requires consistently with the well-being of the forests.

Central Circle.

This is disposed of as occasion demands by departmental collection and sale, or by farming the right of collection, or on permit. Under the first method mhowra seed and hirda form the main items, yielding respectively Rs. 4,938 and Rs. 5,159; under the two latter hirda yielded Rs. 11,001 and grass and grazing Rs. 2,79,661. Other minor products, rosha grass, leaves, pods and fruits, bamboos, earth and stone, brought the total revenue to Rs. 3,38,845 as against Rs. 2,97,384 in 1915-16.

Southern Circle.

The systems of exploitation as detailed in Form No. 20 were the same as last year except that a large number of bamboos were departmentally extracted for supply to the Military Department; a small quantity of hirda was also collected by departmental agency in Kánara E. D. for experimental purposes. The total revenue from minor forest produce was Rs. 1,95,789 against Rs. 1,89,089 during 1915-16.

Sind circle.

Form No. 20 gives details.

Minor produce was farmed out to contractors. This includes lac, babul pods, grasses. Fishery rights produced Rs. 44,104. Of these there was a great demand for lac, the contracts rising from Rs. 675 to Rs. 17,100. Efforts were made to induce the insect to spread to fresh compartments by cutting the topmost branches of suitable trees to obtain succulent shoots on which alone the young larvæ can exist, while branches of seed-lac were tied in close proximity on the leeward side. The results will be noted during the ensuing year. It was noticed that the insects from seed-lac which had swarmed on old branches had died.

Revenue from grazing realized Rs. 37,950.

(b) Agency of Exploitation.

(i) Departmental Agency.

Northern Circle.

This was confined to the North Dángs by which 5,359 logs of teak measuring 3,787½ khandies (of 12½ cubic feet) and of other species 963 logs totalling 811½ khandies were felled and taken to the sale depôt at Fort Songad station (Tapti Valley Railway). The Subir saw-mill also prepared the following :—

12,006 narrow guage sleepers
16,326 sizes of scantlings
1,34,668 battens.
10,345 boards.
} All teak.

Central Circle.

Fellings under this heading are confined to as small limits as possible, nearly all coupes being sold standing to contractors; for the supply of fuel to Mahábleshwar Rs. 5,537 were spent on the departmental extraction of 3,64,326 cubic feet, the resulting price being Rs. 11,518; at Mátherán 65,676 cubic feet were extracted, the cost being Rs. 4,818 and the revenue Rs. 7,037. From the Poona babul forests, 1,08,861 cubic feet, the results of floods, windfalls, erosion, and dead and dying trees, were cut by the department and sold for Rs. 8,453. As regards minor produce mhowra seed was collected departmentally in North and West Khándesh, the net revenue being Rs. 1,354, and hirda collected on the share system in the Rájur and Akola ranges of the Poona division realized Rs. 3,732.

Southern Circle.

The works carried out under this head comprise timber and sandalwood brought to depôts for annual sales, fuel supplied to the Madras and Southern Mahrátta Railway for locomotives, other produce cut or collected experimentally to create a market for departmental use or for supply to other Government departments. Details are given in the following table :—

	Average of three preceding years.						1916-17.					
	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Receipts.	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Receipts.
Major.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
Timber ...	6,21,636	9,98,381	16,20,017	9,38,904	4,21,799	10,80,200	3,79,744	10,93,661	18,33,405	11,42,748	4,96,663	14,30,055
Fuel	8,64,708	35,93,623	44,58,331	36,50,019	1,24,387	2,46,353	7,80,258	41,15,014	48,95,272	37,76,369	1,59,546	2,31,120
Sandalwood, Value Rs.	86	34,863	34,949	34,199	2,353	34,199	2,005	44,997	47,002	46,482	2,973	46,482
Minor.												
Bamboos, Value Rs.	...	49	49	49	34	49	...	11,712	11,712	11,483	9,915	1,433
Grass and other minor produce, Value Rs.	713	2,433	3,146	2,263	2,140	2,382	510	625	1,135	822	463	556

The quantity of timber exploited during the year was 10,93,661 cubic feet against 9,80,423 in the previous year, an increase of 1,13,238 cubic feet. This increase is mainly due to a larger quantity of teak brought to Kodibág depôt from Gund and the Kálinadi slopes in Kánara W. D. and to the extraction of poles and other material for war purposes in Kánara W. D. and Belgaum. Though considerable progress in communications was made between Gund and Kadra they have not yet reached the stage where they can affect the outturn from that (Gund) range. A scheme for the improvement of communications from Gund to Kodibág depôt is being drawn up by Mr. Pipe, the Engineer specially deputed to make preliminary investigations during the year. The percentage of timber exploited departmentally to the total outturn was 47 against 55 in the previous year.

The quantity of fuel extracted departmentally during the year was 4,115,014 cubic feet against 3,660,641 cubic feet in the previous year, an increase of 454,373 which is due to larger quantities of railway fuel extracted in Kánara W. D. and to the departmental exploitation of fuel from coupes for retail sale to the public at the Honávar, Bhatkal and Shiráli fuel depôts in Kánara S. D. owing to want of contractors to run the depôts. The percentage of fuel extracted by Government agency to the total outturn was 44 against 31 in 1915-16.

The outturn of sandalwood was slightly greater in quantity than that of the previous year, but the revenue therefrom increased considerably, the prices obtained during the year being on an average nearly 50 per cent. higher all round. The revenue from this source was Rs. 46,482 against 30,675 in the previous year.

The departmental exploitation of bamboos worth Rs. 11,712 is an unusual operation and was undertaken in Kánara N., E. and W. divisions and Belgaum for supply to the Military Department.

In the Belgaum division, grass was cut departmentally and sold. Experiments in ensilage were not made as there is no demand for fodder of this description. In Kánara E. D. a small qnantity of hirda was collected for experiment. In the Dhárwár-Bijápur division some gum was collected departmentally and sold for Rs. 202 at a net profit of Rs. 71.

The Government buffaloes (11) in Kánara N. D. carted firewood for the use of the Government saw-mills in that division and helped to cart sawn material from the mills to the railway station. The cart depôts in Kánara N. and E. divisions, established in the year 1915 as per Government Resolution No. 2198 dated 9th March 1914, are independent of the above buffaloes and they worked at a net profit of Rs. 516 during the year as separately reported to Government shortly after the close of the year.

The monorail in the Belgaum division was again not used owing to frequent breakages and inexperience of the contractor's men to repair them.

The work turned out by the two Government saw-mills in Kánara N. D. was as under :—

Material.		Outturn.	
		1916-17.	1915-16.
6 feet teak sleepers ...	... Number.	24,172	7,472
7 ,, ...	... ,,	3,190	144
2½ ,, ...	... ,,	.....	200
Planks (teak) ...	... C. ft.	4,234	2,118
Scantlings (teak) ...	... ,,	6,303	16,065
Battens (teak) ...	... ,,	11,672	6,655
Scantlings (junglewood) ...	... ,,	4,269	.....
Battens (junglewood) ...	... ,,	589	.....
Value of the outturn, estimated	... Rs.	96,286	57,360
Charges for running mills, estimated	... ,,	74,182	49,987
Net income, estimated ...	... ,,	22,104	7,373

The results of the year show a satisfactory improvement over the previous year. Three new saw-mills were purchased at the close of the year as per Government Order, Financial Department, No. 1250 of 21st April 1917 :—

One 10 horse-power mill with accessories and fittings complete for use in Kánara E. D., cost Rs. 10,222;

One 12 horse-power mill with accessories and fittings complete for use in Kánara C. D., cost Rs. 16,600;

One 14 horse-power mill with accessories and fittings complete for use in Kánara W. D., cost Rs. 20,110.

A contractor's saw-mill operating in Kánara E. D. is reported to have done the following work for this department :—

6 feet teak sleepers	No.	14,891
7 „	„	626
Planks	C.ft.	2,800
Battens	„	3,389
Scantlings	„	3,140

For sleepers the contractor gets the usual wages fixed in his contract agreement; for all other material he is paid a $\frac{5}{8}$th share on the sale price of the material, the remaining $\frac{3}{8}$th share going to the department; the Government share during the year amounted to Rs. 4,515.

Sind Circle.

With the exception of the extraction of wood from Budka coupe in the Jerruck division which has been mentioned under Chapter IV—Research and Experiments, departmental operations were confined to the supply of fuel to Government steamers on the Indus. The quantity supplied totalled 1,04,717 cubic feet, the value being Rs. 2,911 and the expenditure Rs. 2,679.

(ii) Purchasers.

Northern Circle.

All forest produce except that mentioned above, that removed by privilege holders and free grants was removed by purchasers (under contract). For quantities and value see statement under " (*c*) Outturn and sources of forest produce ".

Central Circle.

By this agency is removed the greater part of the produce of the circle. Two hundred and fourteen coupes in all divisions were sold, less by 19 than in the previous year, but the price realized rose from Rs. 2,32,849 to Rs. 2,54,209 as a result of keen demand for timber and fuel. In Khándesh large quantities of dead wood were removed by purchasers either on permit or by sale of the right to collect in definite areas.

Disposal of royalty trees from revenue lands in accordance with the policy of Government that occupants should become the owners of such trees at a moderate price, and clearance of growth in revenue waste in West Khándesh, brought in Rs. 1,40,037 from 1,74,774 trees as against Rs. 1,00,661 from 1,23,768 in 1915-16.

Grass and grazing receipts both showed a steady increase, the former from Rs. 1,02,433 to Rs. 1,11,398, the latter from Rs. 1,43,083 to Rs. 1,68,263 or a total increase from Rs. 2,45,516 to Rs. 2,79,661. The number of animals on which grazing fees were paid was 9,47,862 as against 8,68,069, and 65,395 animals belonging to privilege holders grazed free of charge.

Bamboo revenue rose from Rs. 8,301 to Rs. 11,086; rosha-grass from Rs. 2,617 to Rs. 5,469, but hirda and shikekai fell slightly. On the other hand, the demand for tanning materials such as tarwad bark and ghatbor fruits rose to such an extent that miscellaneous revenue increased from Rs. 11,948 to Rs. 21,237.

Southern Circle.

The value of produce removed by purchasers was:—

Produce.	Average of past three years.		1916-17.	
	Quantity.	Value.	Quantity.	Value.
Major.	C. ft.	Rs.	C. ft.	Rs.
Timber	7,87,879	2,72,464	12,17,000	2,92,950
Fuel	66,07,829	97,079	51,51,000	1,06,152
Total ...	73,95,708	3,69,543	63,68,000	3,99,102
Minor.	Number.		Number.	
Bamboos	41,02,448	53,228	56,28,731	65,484
Grass and grazing	.....	67,746	.....	75,740
Other minor produce ...	.....	57,286	.....	54,565
Total ...	.....	1,78,260	.....	1,95,789
Grand total ...	.....	5,47,803	.....	5,94,891

The increase in the area of coupes sold accounts for the increase in the revenue from the major produce.

The increase in the number and value of bamboos is due to the increased demand as a result of the extensive destruction of houses in Dhárwár district by floods in November 1916; a considerable number was also purchased by Mr. Strickland of Shimoga from Kánara W. D. for sale to the Military Department.

The increase in the amount of grazing fees collected is due to the larger number of animals that grazed in the forests.

The decrease in the value of other minor produce is trivial and it is due to the fall in the prices for hirda farms.

Sind Circle.

Receipts from the sale of coupes and deadwood at the annual sales are shown below:—

Division.	Description of area exploited.	Acreage.	Value realised.
			Rs.
Sukkur	Coupes	10,908	82,125
	Deadwood		1,751
	Irregular fellings ...		22,046
Lárkána	Coupes	3,579	36,221
Hyderabad	Coupes	3,448	1,02,201
Jerruck	Coupes	3,095	64,051
	Deadwood		80
	Total, 1916-17 ...	21,030	3,08,475
	Total, 1915-16	20,736	2,53,113

To the above must be added the revenue from all irregular fellings and thinnings amounting to Rs. 26,791 received during the rest of the year. It will be noticed that there is a rise in the receipts of Rs. 55,362 or a 22 per cent. increase on last year's figures; this is chiefly due to the rise in the price of fuel. The excess yield from the Hyderabad coupes alone was Rs. 33,246, the sales being held for the first time at Karáchi.

The revenue realized by the sale of fuel under the permit system was Rs. 7,095 against Rs. 6,704 of the previous year. There were increases in

Sukkur and Hyderabad divisions and a slight decrease at Tatta in Jerruck. Prospects for the coupe revenue during the coming year as also the permit revenue in the Hyderabad division are excellent.

The grazing fee collection was as under :—

Division.		1915-16.	1916-17.
		Rs.	Rs.
Sukkur	...	13,136	13,748
Lárkána	...	6,797	6,991
Hyderabad	...	14,815	9,994
Jerruck	...	11,435	7,217
Total	...	46,183	37,950

The fall in grazing revenue in Lower Sind is due to the unusual rains in the Kohistan hills which resulted in the herdsmen staying at home and in Kutch, outside the forests.

Minor forest produce.—The revenue derived from minor forest produce farmed out and assessment levied on lands leased out for cultivation as compared with last year's results is detailed below :—

Produce.		1915-16.	1916-17.
		Rs.	Rs.
Lac	...	645	17,100
Babul pods	...	24,284	19,107
Grasses	...	3,888	3,253
Fishery	...	4,341	4,644
Cultivation	...	13,325	13,482
Paban and bih	...	...	450
Total	...	46,483	58,036

As the figures show there was a drop in the revenue from babul pods owing to the absence of many of the hill herdsmen, and a large increase in lac revenue.

(iii) Rights and Privileges.

Northern Circle.

These were as usual. There were no complaints. Full details are given in Forms 19 and 20 and statement under " (*c*) Outturn and sources of forest produce " below.

Central Circle.

The value of the produce removed under this head was :—

				Rs.
Timber	...	...	...	15
Fuel	...	...	...	11,039
Grass and grazing		...	...	28,481
Minor produce		...	...	2,531
			Total ...	42,066

the major part representing privileges in Khándesh exercised under the Tápti Codes. In addition Rs. 11,032 were paid in cash as khoti shares on the forest revenue in the Kolába division.

Southern Circle.

There are no right-holders in this circle. Privileges are many and they are abused, though endeavours are made to check the abuse by enhancement of grazing fees and curtailment of free grants of forest produce ordinarily allowed by rules. It is difficult to give accurate figures under this head and the following is but a repetition of the figures returned in previous years :—

Produce.	Quantity.	Value.
Major.	C. ft.	Rs.
Timber	3,00,000	72,000
Firewood	30,41,686	6,46,353
Minor.	Number	
Bamboos	30,00,000	15,000
Grazing	.....	3,00,387
Minor produce ...	.....	1,80,000

Sind Circle.

The extent and value of forest produce and grazing enjoyed free under privileges amounted to :—

	Value Rs.
Grazing, 9,989 animals ...	... 3,859
Firewood, 18,642 cubic feet ...	... 179

(iv) Free Grants.

Northern Circle.

Timber and other produce to the value of Rs. 4,503 as against Rs. 4,883 in 1915-16 was granted free. These grants were normal.

Central Circle.

These were made to a value of Rs. 3,631, as against Rs. 5,008 in 1915-16, and for the usual objects such as rewards for fire protection, rebuilding houses, schools, temples, tals and wells.

Southern Circle.

The value of forest produce granted free, compared with the average of the past three years, is as under :—

Produce.	Average of past three years.		1916-17.	
	Quantity.	Value.	Quantity.	Value.
Major.	C. ft.	Rs.	C. ft.	Rs.
Timber	33,617	10,028	43,000	10,138
Fuel	31,229	305	22,000	212
Total ...	64,846	10,333	65,000	10,350
Minor.				
Bamboos	46,602	418	84,220	398
Grazing	.....	4,916	.....	2,245
Other minor produce ...	.....	1,478	.....	1,901
Total ...	.....	6,812	.....	4,544
Grand total ...	.....	17,145	.....	14,894

Free grants of timber worth Rs. 2,449 were made to poor villagers in the Bijápur district for repairing or rebuilding their houses damaged by the heavy rains of November 1916, which brought down thousands of tenements and caused much damage in the country. The increase in the number of bamboos is due to grants made to two villages partially destroyed by fire in Kánara Northern division. The decrease in the value of free grazing is due to the reason that this concession was curtailed or stopped in several cases for forest fires. On the whole the grants made were normal.

Sind Circle.

Free grants are shown below :—

Produce.	Extent.	Value.	
		1915-16.	1916-17.
		Rs.	Rs.
Grazing	2,611 animals.	1,960	1,091
Minor produce	460 bundles.	42	19
Timber firewood	4,798 c. ft.	597	359

In addition to the above free grazing was allowed to forest contractors to the value of Rs. 2,051.

(c) *Outturn and Sources of Forest Produce.*

Northern Circle.

The outturn from all sources of forest produce for the year 1916-17 compared with that of the previous year was as follows :—

Agency of exploitation.		Material.								
		Timber.		Fuel.		Total wood.		Bamboos.	Grass and grazing.	Minor produce.
		Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Value in Rupees.	Value in Rupees.	Value in Rupees.
Government ...	1916-17	1,09,233	1,25,538	67,969	2,298	1,77,202	1,27,831	48	...	4,949
	1915-16	89,250	1,57,529	98,744	5,023	1,87,994	1,62,552	...	68,120	8,799
Purchasers ...	1916-17	23,33,828	16,86,782	61,79,820	12,338	85,13,648	16,99,120	33,348	98,502	39,216
	1915-16	26,39,965	11,91,533	54,41,809	11,755	80,81,774	12,03,288	34,427	1,02,887	35,924
Free grantees ...	1916-17	8,591	3,365	6,840	55	15,431	3,420	470	...	613
	1915-16	8,722	2,466	80	2	8,802	2,468	...	...	6
Privilege holders.	1916-17	76,220	2,28,660	86,58,571	3,00,635	87,34,791	5,29,295	11,695	3,65,197	36,240
	1915-16	76,220	2,28,660	76,21,903	2,64,641	76,98,123	4,93,301	5,048	2,96,789	57,000
Total, 1916-17 ...		25,27,872	20,44,345	1,49,13,200	3,15,321	1,74,41,072	23,59,666	45,561	4,63,699	81,018
Total, 1915-16 ...		28,14,157	15,80,188	1,31,62,536	2,81,421	1,59,76,693	18,61,609	39,475	4,67,787	1,01,729

Central Circle.

Comparison for two years is made in the following statement :—

Agency of exploitation.		Material.									
		Timber.		Fuel.		Total wood.		Bamboos.		Grass and grazing.	Minor produce.
		Cubic ft. solid.	Value. Rupees.	Cubic ft. solid.	Value. Rupees.	Cubic ft. solid.	Value. Rupees.	Number.	Value. Rupees.	Value. Rupees.	Value. Rupees.
Government	1915-16 ...	7,147	1,387	2,86,283	22,504	2,93,430	23,891	1,567	94	26	19,403
	1916-17 ...	10,808	2,320	3,42,920	28,312	3,53,728	30,632	155	1	...	10,389
Purchasers	1915-16 ...	7,50,773	3,09,469	30,08,501	70,934	37,59,274	3,80,403	8,43,634	8,301	2,45,516	24,044
	1916-17 ...	8,22,184	3,86,849	29,47,144	55,206	37,69,328	4,42,055	10,80,050	11,086	2,79,661	37,708
Free grantees	1915-16 ...	19,604	3,266	29,091	903	48,895	4,169	10,000	85	...	669
	1916-17 ...	17,719	2,732	957	47	18,676	2,779	2,485	38	...	814
Privilege holders.	1915-16 ...	1,427	165	5,02,913	10,666	5,04,340	10,831	...	...	27,688	4,659
	1916-17 ...	316	15	5,06,819	11,039	5,07,135	11,054	1,200	3	28,481	2,528
Total ...	1915-16 ...	7,79,151	3,14,287	38,26,788	1,05,007	46,05,939	4,19,294	8,55,201	8,479	2,73,230	48,775
	1916-17 ...	8,51,027	3,91,916	37,97,840	94,604	46,48,867	4,86,520	10,83,890	11,128	3,08,142	51,439

Southern Circle.

The total outturn of the year is summarized in the following table :—

Agency of exploitation.	Timber.		Fuel.		Total wood.		Bamboos.		Sandal-wood Value.	Minor forest produce, value	Grazing, value.
	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.			
		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Government	10,93,661	14,30,055	41,15,014	2,31,120	52,08,675	16,61,175	22,894	1,483	46,482	...	556
Purchasers	12,17,000	2,92,950	51,51,000	1,06,152	63,68,000	3,99,102	56,28,731	65,484	...	54,565	75,740
Free grantees	43,000	10,138	22,000	212	65,000	10,350	84,220	398	...	1,901	2,245
Privilege holders ...	3,00,000	72,000	30,41,686	6,46,353	33,41,686	7,18,353	30,00,000	15,000	...	1,80,000	3,00,387
Total, 1916-17 ...	26,53,661	18,05,143	1,23,29,700	9,83,837	1,49,83,361	27,88,980	87,35,845	82,365	46,482	2,36,466	3,78,928
Total, 1915-16 ...	20,54,281	14,66,968	1,46,59,010	9,77,421	1,67,13,291	24,44,389	52,63,841	63,128	36,761	2,51,927	3,76,347

The number of cattle for which grazing was allowed during the past two years is as under—

	1916-17.	1915-16.
Free	30,569	33,085
On fee ...	4,59,461	4,42,938
Total ...	4,90,030	4,76,023

The total expenditure incurred under "Management of State Forests" was Rs. 8, 24,635 against Rs. 7,28,850 in the preceding year.

Sind Circle.

The outturn from all sources of forest produce is compared with that of 1915-1916 in the following statement :—

	Material removed.								
	Timber.		Fuel.		Total wood.		Minor produce.	Grazing.	Total.
	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.			
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Government	11,118	1,796	289,384	13,246	3,00,502	15,042	2,466	...	17,510
Purchasers	3,53,557	1,04,882	1,84,89,686	2,99,309	1,88,43,243	4,04,392	40,821	37,950	4,83,163
Free grantees	3,191	351	67	7	3,258	358	19	2,048	2,425
Privilege holders	...	...	18,642	179	18,642	179	...	3,859	4,038
Total, 1916-17 ...	3,67,866	1,07,029	1,87,97,779	3,12,741	1,91,65,645	4,19,971	43,306	43,857	5,07,136
Total, 1915-16 ...	2,15,029	67,222	1,60,15,512	2,01,603	1,62,30,541	2,68,825	34,428	54,887	3,58,140

The quantity and value of material removed by the Public Works Department from the areas temporarily alienated to it along bunds and canal banks were as follows :—

Material.	Quantity.	Value. Rs.
Timber—Timber pieces ...	18,636 ...	1,675
Branch wood bundles ...	3,550 ...	473
Earth ...cubic feet	29,05,928 ...	726
Total ...		2,874

CHAPTER III.

FINANCIAL RESULTS.

Northern Circle.

Financial results of the year as compared with those of last year and the average of the past five years are given in the following statement :—

Head.	1916-17.	1915-16.	Average of five preceding years.
Revenue ...	Rs. 20,40,421 (*deduct*) 642	Rs. 16,57,003 (*deduct*) 68,120	Rs. 15,75,650 Famine fodder.
	(*net*) 20,39,779	(*net*) 15,88,883	
Expenditure ... A ..	1,99,549	3,55,694 (*deduct*) 1,53,330	3,29,800 Famine fodder.
	1,99,549	(*net*) 2,02,364	
B ...	3,83,804	4,08,045	3,88,083
Total, Expenditure ...	5,83,353	6,10,409	7,17,883
Surplus ...	14,56,426	9,78,474	8,57,767

N.B.—The above figures include the following on account of royalties on forest produce from lands outside forests :—

	Rs.
Revenue	3,65,091
Expenditure	2,996

Classification of Revenue and Expenditure of the year 1916-1917 :—

I.—Revenue.

Particulars.	Receipts.	Percentage.
Major produce ...	18,26,951	89·5
Minor produce ...	2,12,828	10·5
Famine fodder ...	642	.....
Total ...	20,40,421	100

II.—Expenditure A.

	Rs.	Percentage.
Extension and constitution.	2,200	1·1
Improvement ...	92,630	46·4
Exploitation ...	1,04,719	52·5
Total ...	1,99,549	100

III.—Expenditure B.

Particulars.	Charges.	Percentage.
	Rs.	
Administration ...	33,567	5·7
Executive ...	1,44,195	24·6
Protective ...	4,05,590	69·7
Total ...	5,83,352	100

Figures of the various divisions compared with those of last year are as follows :—

Division.	Year.	Receipts.	Expenditure.			Net results.
			A	B	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.
Panch Mahâls ...	1915-16 ...	1,14,023	10,927	48,650	59,577	+54,446
	1916-17 ...	1,58,060	7,825	43,245	51,071	+1,06,989
Surat ...	1915-16 ...	2,32,603	1,12,298	62,734	1,75,032	+57,571
	1916-17 ...	2,01,657	1,05,786	52,385	1,58,178	+43,479
North Thâna ...	1915-16 ...	5,54,038	28,281	54,539	82,820	+4,71,218
	1916-17 ...	8,04,419	38,110	55,758	93,868	+7,10,551
West Thâna ...	1915-16 ...	2,56,086	14,317	49,756	64,073	+1,92,013
	1916-17 ...	3,51,174	14,195	56,819	71,014	+2,80,160
East Thâna ...	1915-16 ...	2,03,488	14,924	63,525	78,449	+1,25,039
	1916-17 ...	2,89,209	16,183	60,333	76,516	+2,12,693
South Násik ...	1915-16 ...	1,68,442	16,123	54,046	70,169	+98,273
	1916-17 ...	1,61,437	9,070	38,666	47,736	+1,13,701
North Násik ...	1915-16 ...	59,819	2,463	31,051	33,514	+26,305
	1916-17 ...	68,428	5,885	28,775	34,460	+33,968
Násik sub-division (newly created)...	1915-16 ...	...	...	...	...	.....
	1916-17 ...	4,057	761	13,183	13,944	-9,887
Total* ...	1915-16 ...	16,57,003	3,55,694	4,08,045	7,63,739	+8,93,264
	1916-17 ...	20,40,421	1,99,549	3,83,804	5,83,353	+14,57,068
Average of past five years ...	.....	15,75,650	3,29,800	3,88,093	7,17,883	+8,57,767

* This is inclusive of the figures for the Direction office, Working Plans division and Famine fodder.

Panch Mahâls.—An increase of Rs. 55,118 was due to a fairly normal agricultural year and war demands, resulting in seventy coupes being sold for Rs. 1,16,366 as against 47 coupes for Rs. 71,248 in the last year. A decrease of Rs. 2,192 in receipts from teak in malki fellings was due to a smaller number of trees being sold, though prices were considerably higher. A decrease of Rs. 5,279 occurred under grass, owing to the prices returning to normal on the disappearance of scarcity in neighbouring districts.

Surat.—The growing surplus of this division on which we have been priding ourselves received a slight setback due firstly to the May sale of timber at Fort Songad estimated to realize Rs. 20,000 being postponed owing to lack of trucks which had prevented the removal of material sold last February; and secondly to last year's receipts from the saw-mill being unduly inflated by the inclusion of a bill amounting to Rs. 13,771 for sleepers supplied in 1914-15, so that the saw-mill surplus revenue for last year's working was really Rs. 16,246 and not Rs. 30,017 as then shown. Compared with the former figure this year's surplus from the saw-mill working of Rs. 18,916 compares very favourably, especially in view of the fact that working expenses were Rs. 4,958 higher. Against this we have a saving on total expenditure of Rs. 18,200 made up of Rs. 10,600 under "B—Establishment" and Rs. 7,660 under "A—Conservancy and Works". This last figure includes a bill for cartage amounting to Rs. 4,600 which ought to have been paid before the end of the forest year and now remains a charge against the coming year. Prices or timber were higher. The total financial results were very satisfactory.

North Thâna.—The dullness in the timber trade due to war continued, chiefly by rendering the supply of trucks difficult, but selling of standards in the coupes of the year (as elsewhere recorded) produced an extra Rs. 80,000, thus giving a net increase of Rs. 58,777 in coupe prices over last year's figure. An increase of Rs. 2,00,674 was realized by a greater number of trees being sold from gurcharans and malki lands. Both of these increases must be regarded more in the light of 'windfalls' than anything else. An increase of Rs. 10,000 in the total expenditure was due to providing accommodation for Rangers and their offices in the newly constituted ranges, and to the part construction of the Saiwan-Udhwa road.

East and West Thânas.—These two divisions are taken together as not separately comparable with last year's returns owing to the reorganization of charges already alluded to, and they must be compared with the joint results of Central and South Thâna of last year's report. There was a net increase

of Rs. 96,491 over last year's joint receipts chiefly due to the sale of standards in coupes and, as in North Thána, this must be regarded in the nature of a 'windfall'. A demand for timber stimulated by the war was negatived by a shortage of wagons due to the same cause and resulted in general dullness in trade though abnormally high prices were realized where transport was available.

North and South Násik and Násik sub-division.—As in the case of East and West Thánas, and for a similar reason, it is impossible to compare each charge with last year's returns. They are, therefore, grouped together. There was an increase of Rs. 27,928 in total net revenue as compared with last year, due entirely to better prices received for coupes.

General.—Financial results were very satisfactory, and if it had not been for the lack of railway transport due to the war, results would have been far better still.

Central Circle.

Excluding famine fodder operations, the financial results of the past two years and the average of the five preceding years are as follows :—

Year.	Revenue.	Expenditure.		Surplus.
	Rs.	Rs.	Rs.	Rs.
1916-17 ...	8,83,598	A. 1,14,897 B. 4,06,741	5,21,638	3,61,960
1915-16 ...	7,72,218	A. 1,04,365 B. 4,00,991	5,05,356	2,66,862
Average of 1911-12 to 1915-16.	7,69,567	A. 1,32,242 B. 3,93,283	5,25,525	2,44,042

and separating the jurisdictions of the two Commissioners the figures are :—

Central Division.

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1916-17 ...	7,16,800	4,24,601	2,92,199
1915-16 ...	5,93,549	4,13,867	1,79,682
Average of 1911-12 to 1915-16.	6,31,841	4,26,027	2,05,814

Southern Division.

1916-17 ...	1,66,798	97,037	69,761
1915-16 ...	1,78,669	91,489	87,180
Average of 1911-12 to 1915-16.	1,37,727	99,499	38,228

Thus the net revenue, in spite of an increase in expenditure of Rs. 16,282 has risen by Rs. 95,098, a satisfactory state of affairs which is mainly due to two divisions, North and West Khándesh, though East Khándesh and Sátára also showed better results than in the previous year. The Poona surplus showed a slight decrease and that in Kolába a considerable one. Looking to gross receipts which are a better index of a season's working than is the surplus, for the latter may be affected by establishment and other varying charges, it is found that every division but Kolába showed a rise, North and West Khándesh a most noticeable one, and Sátára to a substantial degree which is all the more qualifying in view of the fact that the division has been worked at a deficit for some years past. Comments on each division follow.

East Khándesh.—Gross receipts increased by Rs. 9,625 due to good demand for timber coupes and bamboos and to increased royalty on forest material imported into the district from adjacent States. Grass and grazing receipts also improved. Establishment charges fell with the transfer of an Imperial officer to the Indian Army Reserve and his replacement by a Provincial officer. The surplus accordingly rose from Rs. 73,102 to Rs. 88,815.

North Khándesh.—The stagnation in the timber and fuel market which so adversely affected revenue in 1915-16 entirely disappeared, and gross

receipts increased by Rs. 46,615 as compared with that year, and by Rs. 18,879 as compared with the average of the five preceding years. Prices paid for coupes were excellent, and grass and grazing and rosha-grass revenue also increased. Expenditure showed a slight rise, and the net surplus was Rs. 51,570 as against Rs. 10,008.

West Khándesh.—Similar conditions prevailed as in North Khándesh. Gross receipts rose by Rs. 50,829 and the surplus by Rs. 50,710, the result of great demand for timber and fuel, both from coupe and from revenue lands under clearance by the department; and grazing receipts also showed an increase of Rs. 10,000, partly due to the transference of large areas from pasture to forest proper.

Poona.—Though the surplus showed a small decrease of Rs. 3,460, this was entirely due to establishment charges, there having been for half the year a second sub-divisional officer on high pay attached to the division. The gross receipts were the highest ever recorded, and what is more to the point is that they were obtained entirely from lands in charge of the department, and were not swollen, as was the case in 1915-16, by Rs. 24,000, the sale proceeds of babul on lands under transfer to the Revenue Department. These highly satisfactory results were due to increasing demand for all forest material, to careful supervision of grazing collections and to the high price realized for tarwad bark.

Sátára.—This division, in spite of increased expenditure, showed a surplus of Rs. 1,407 instead of the deficit of Rs. 9,329 which occurred in 1915-16, and of the continual deficits of many years past. Better prices for coupes, and the growth of demand for fuel at Mahábleshwar, to which must be added better arrangements, both sylvicultural and financial, for meeting the latter, were the cause of the improvement, and it is an improvement which may be expected to continue looking to the absence of material outside, and the dependence of the district on local resources which can only be met from the forests.

Kolába.—A rise in expenditure of Rs. 5,548, combined with a decrease in receipts of Rs. 11,871, resulted in a surplus decreased by Rs. 17,419 as compared with that of 1915-16, but still well above the average of the five previous years. The decreased revenue was due partly to less being received for coupes, not it may be said owing to poor demand but to inferior quality of several of the coupes, to fewer royalty trees in occupied lands being disposed of, and to grazing revenue falling owing to prevalence of cattle disease; the increased expenditure was mainly owing to payment of khoti shares for two years in one, the khots in 1914-15 having in 1915-16 refused to sign their agreements. Thus the setback may confidently be said to be purely temporary.

Further classification of the revenue and expenditure is as follows :—

I.—REVENUE.

Head.	Receipts.	Percentage.
	Rs.	
Major produce ...	4,72,541	53·5
Minor produce ...	4,11,057	46·5
Total ...	8,83,598	100

II.—EXPENDITURE.

A.

Head.	Charges.	Percentage.
	Rs.	
Extension and constitution	8,625	7·5
Improvement ...	69,049	60·1
Exploitation ...	37,222	32·4
Total ...	1,14,896	100

B.

Head.	Charges.	Percentage.
	Rs.	
Administration ...	56,114	13·8
Executive ...	1,42,464	35·0
Protective ...	2,08,163	51·2
Total ...	4,06,741	100

Southern Circle.

The gross revenue and the surplus have beaten all previous records. The following table compares the revenue and expenditure with those of the previous year and with the average of the preceding five years :—

Year.	Revenue.	Expenditure.		Surplus.	Percentage of surplus to gross revenue.
	Rs.	Rs.	Rs.	Rs.	
1916-17 ...	23,57,731	A 8,37,221 B 4,08,185	12,45,406	11,12,325	47·
1915-16 ...	19,95,685	A 7,35,480 B 4,04,419	11,39,899	8,55,786	43·
Average of 1910-11 to 1914-15.	17,52,274	A 6,59,727 B 3,60,335	10,20,062	7,32,212	42·

The above shows that there was an increase in the receipts and surplus as compared with the corresponding figures of the previous year and the average of the five preceding years. Though the expenditure increased by about a lakh over the last year for reasons stated below, the percentage of net to gross revenue also increased from 43 to 47 mainly on account of curtailment of all sorts of expenditure with a view to economy.

The following statement compares the revenue and expenditure in details of budget heads with those of 1915-16 :—

Budget heads.		Amount		Difference.
		1915-16.	1916-17.	
		Rs.	Rs.	Rs.
Receipts	I ...	13,74,332	17,09,697	+ 3,35,365
	II ...	5,68,738	5,94,890	+ 26,152
	III ...	459	253	— 206
	IV ...	11	11	.....
	V ...	52,145	52,880	+ 735
	Total, Receipts ...	19,95,685	23,57,731	+ 3,62,046
Expenditure A.	I ...	5,91,151	6,69,562	+ 78,411
	II ...	7,050	6,463	— 587
	III ...	62	73	+ 11
	VI ...	12,475	10,175	— 2,300
	VII ...	71,701	78,442	+ 6,741
	VIII ...	43,171	55,591	+ 12,420
	IX ...	9,870	16,915	+ 7,045
	Total, A. ...	7,35,480	8,37,221	+ 1,01,741
Expenditure B.	I ...	3,45,766	3,51,387	+ 5,621
	II ...	45,216	43,192	— 2,024
	III ...	13,437	13,606	+ 169
	Total, B. ...	4,04,419	4,08,185	+ 3,766
	Total, Expenditure ...	11,39,899	12,45,406	+ 1,05,507

The gross receipts rose by 3·6 lakhs over those of the previous year mainly under the revenue head I. Notwithstanding the general dislocation of trade and business due to war, prices for all classes of timber kept up in a wonderful way, teak realizing record prices at the Tavargatti sales in Kánara Northern division. Larger quantities of timber, brought for sale from the Gund and Sulgeri forests in Kánara Western division, and larger amounts of arrear revenue collected also contributed to the increase. A larger number of coupes sold account for the increase under II.

The increase of Expenditure A by 1·01 lakh occurred as under:—

Under I.—Due to the purchase of saw-mill machinery worth about Rs. 47,000 for the four Kánara divisions and to payments of wages for larger quantities of timber exploited from forests.

Under VII.—Due to increased expenditure on road construction and development of river communications in Kánara Western division.

Under VIII.—Due to the unusual cost of Wild Tribes (Berad) Settlement in the Khánápur taluka of the Belgaum division (Rs. 6,224), to larger amount of cultural operations undertaken during the year and to the cost incurred in protecting burnt areas in all divisions.

The deputation of a Special Engineer, Mr. Pipe, for the improvement of river communications in Kánara Western division contributed to the increase of expenditure under B—I—Salaries.

The following table exhibits the proportion of revenue and expenditure under the different heads:—

Particulars.	Total.	Percentage.
Revenue.	Rs.	
Major produce	21,09,062	89·5
Minor produce	1,95,789	8·3
Miscellaneous	52,880	2·2
Total ...	23,57,731	100·
Expenditure A.		
Extension and constitution ...	12,586	1·5
Improvement	1,21,446	14·5
Exploitation	7,03,189	84·0
Total ...	8,37,221	100·
Expenditure B.		
Administration	59,549	14·6
Executive	1,71,807	42·1
Protective	1,76,829	43·3
Total ...	4,08,185	100·

The outstandings of revenue at the opening and close of the year were Rs. 4,92,395-9-8 and Rs. 5,93,907-7-9 respectively. Eleven items amounting to Rs. 1,477-8-3 were written off as irrecoverable revenue under the orders of the Conservator.

The outstandings due to the department by contractors and disbursers stood at Rs. 2,22,837-15-10 against Rs. 2,02,267 at the end of the preceding year.

The estimated value of timber and other produce in depôts rose from Rs. 10,85,650 to Rs. 11,84,170 on account of the larger quantities of material on hand at the close of the year.

The value of live and dead-stock shows a net difference of Rs. 38,027 in favour of the year, being part value of the three new saw-mills and other

machinery purchased for use in Kánara Northern, Eastern, Central and Western divisions at the close of the year.

Sind Circle.

The financial results of the year as compared with those of the preceding year and with the average of the past five years are contrasted below :—

Year.	Revenue.	Expenditure.		Surplus.	Percentage of surplus to gross revenue.
	Rs.	Rs.	Rs.	Rs.	
1916-17 ...	5,34,270	A 34,933 B 1,82,170	2,17,103	3,17,167	59·3
1915-16 ...	3,79,875	A 32,511 B 1,83,151	2,15,662	1,64,213	43·2
Average of five years—1910-11 to 1914-15.	4,10,937	A 43,575 B 1,65,801	2,09,376	2,01,561	49·0

The collection of coupe revenue tendered in any particular year in Sind is spread over two years; the revenue as shown for the present year includes therefore half that due for the year 1915-16. The figures show an increase in revenue, expenditure and surplus. This increase in surplus of revenue is shared in by all divisions, the greatest increase being in Hyderabad where it is Rs. 68,084, the total surplus Rs. 1,24,327 being greater than last year's gross revenue of Rs. 96,612.

The percentage of net to gross revenue increased from 43·2 to 59·3 per cent. Even including a normal programme of expenditure under "Conservancy and Works" which has at present been curtailed owing to the war, the percentage of surplus would be 52·9 per cent. if average figures are used under head A of expenditure.

The following table compares the receipts and charges of the year in detail according to budget heads with those of 1915-16 :—

Budget heads.			1915-16.	1916-17.	Difference.
			Rs.	Rs.	Rs.
Receipts	I	...	6,082	16,678	+ 10,596
	II	...	3,45,431	4,87,933	+ 1,42,502
	III	...	1,165	871	— 234
	IV	...	.....	.....	.....
	V	...	27,257	28,788	+ 1,531
Total, Receipts		...	3,79,875	5,34,270	+ 1,54,395
Expenditure A..	I	...	4,217	7,948	+ 3,731
	II	...	64	848	+ 784
	III	...	1	.....	— 1
	VI	...	1,896	1,143	— 753
	VII	...	5,662	6,172	+ 510
	VIII	...	15,788	14,497	— 1,291
	IX	...	4,883	4,325	— 558
Total, A.		...	32,511	34,933	+ 2,422
Expenditure B.	I	...	1,50,352	1,51,375	+ 1,023
	II	...	22,400	20,333	— 2,067
	III	...	10,399	10,462	+ 63
Total, B.		...	1,83,151	1,82,170	— 981
Total, Expenditure		...	2,15,662	2,17,103	+ 1,441

Revenue.—The total revenue of the year shows an advance of Rs. 1,54,395 over that of the previous year and Rs. 1,18,994 over the average of the preceding five years. The increase was due to the following causes : —

(i) Better prices obtained by the sale of coupes, and wood from thinnings.

(ii) Increase in the Sukkur division due to the clearing of forest on an area temporarily alienated to the Military Department for a farm.

(iii) Better revenue from minor forest produce, especially lac.

(iv) Departmental exploitation of one coupe in the Jerruck division.

Expenditure.—The slight increase in expenditure under "Conservancy and Works", *viz.*, Rs. 2,422, was entirely owing to the money spent on the departmental exploitation of the coupe referred to under the head of revenue. There is a decrease under "B.—Establishments", this is wholly due to economy under head of travelling allowances B-II, the increase under B-I was due to the privilege leave allowance paid to the retiring Deputy Conservator.

The following statement shows the proportion of revenue and expenditure under the different heads :—

Particulars.	Total.	Percentage.
Revenue.	Rs.	Rs.
Major produce	4,22,349	79
Minor produce	1,11,921	21
	5,34,270	100
Expenditure A.		
Extension and constitution ...	.....	.....
Improvement	24,995	71
Exploitation	9,938	29
	34,933	100
Expenditure B.		
Administration	29,372	16
Executive	82,829	46
Protective	69,969	38
	1,82,170	100

The revenue outstanding on 30th June 1917 was Rs. 24,900 against Rs. 77,510 on the same date last year. This represents instalments payable by coupe contractors and others which are not due or recoverable until after the close of the year.

Bhai Jethmal has still to pay Rs. 2,214 on account of the lac contract of the Jerruck division for the year 1908-09. He has filed an appeal in the Court of the Judicial Commissioner of Sind which will shortly be heard.

The financial prospects for the ensuing year are excellent.

CHAPTER IV.

Research and Experiments.

Northern Circle.

In *Panch Mahdls* and *North Nasik* experiments in tapping *Boswellia serrata* were carried out with considerable success. They will be continued in the coming year in the light of much valuable information gained.

Central Circle.

Mr. Thomson in Poona continued his experiments on germination of hirda and confirmed the results obtained in the previous year, namely, that removal of the dried up fleshy covering of the seed has a marked effect.

The cultivation of lac was carried out on a small scale, but with no better results than before; propagation is simple enough, but protection of the insects from ants has completely failed.

Eucalyptus of various species, *grevillea* and *casuarina* are under experiment on the Toranmal plateau in North Khándesh, and offer promise of successful introduction.

A most important work was carried out by Mr. Starte in North Khándesh at the instance of the Indigenous Industries Committees and on lines suggested by the Forest Economist, with the tapping of *salai* (*Boswellia serrata*) which tree exists in great numbers in the Sátpuda hills but is of no present economic value. It is unnecessary here to give details of the work, for all results have been communicated to the Committee and to the Forest Economist, but the latter's reply to Mr. Starte may be partly quoted :—

"The results you have obtained are by far the most important as yet available, as the method of carrying out the experiments was all that could be desired. I recently sent small samples of gum, turpentine and resin to the Conservator suggesting that he should forward them to you to see; we have also sent bulk samples to various firms for valuation, and I will send you copies of their reports in due course. I trust now that as the experiments both as regards tapping and the preparation of bulk samples have reached an advanced state, we shall be able to induce a firm seriously to consider the proposition of starting this industry."

There the matter stands at present, and all that can be said is that in raw material the Khándesh forests offer a practically unlimited field for such an industry. The following remark is taken from the Inspector-General of Forests' Note :—Of the three products obtainable from the *Boswellia* crude resin, turpentine, gum, and rosin, the first two "have been reported on favourably for commercial purposes, and when the problem of making the gum suitable for commercial mucilage has been solved, there is every hope of the commencement of a new forest industry which may expand to large dimensions: with its favourable situation and large supplies of *salai* Khándesh should be able to take an important part in the development of this industry, when it comes."

Southern Circle.

(i) Research.

Survey of Tanning Products.—At the beginning of the year, Mr. J. A. Pilgrim, Tannin Expert to the Government of India, paid a visit to the Belgaum division with a view to making enquires into the relative value of the various tan stuffs used by local tanners. He visited the principal tanneries in the district and drew up a short note of his enquiries. He was of opinion that there existed an urgent necessity of testing the various products locally and advocated the establishment of a tannery at Khánápur. Nothing further was done in this direction during the year.

Fruits of kumbia (*Careya arborea*), avla (*Phyllanthus emblica*) and lantana were sent to the Imperial Forest Research Institute, Dehra Dun, from the Belgaum division, with a view to ascertain their commercial uses, if any. The first two were declared useless as tanning materials, as they contained very little tannin. The lantana seeds were found to contain no colouring agent in sufficient quantity to be of any economic value.

Charcoal making and wood distillation.—Further experiments of charcoal manufacture were made in the Khánápur central range, Belgaum division, during the year. It is understood that contractors in the Belgaum and Gokák ranges have now regularly taken to charcoal making and supplying it to the Poona market. The details of charcoal making experiments in the Belgaum division up to date are given below :—

Year.	Amount expended.	Quantity sold.	Revenue realized.	Remarks.
	Rs. a. p.	Mds. lbs.	Rs. a. p.	
1912-13 ..	41 0 0	137 12	58 7 8	
1913-14 ...	58 7 3			
1914-15 ...	2,716 3 6	14,876 25	2,335 6 3	
1915-16 ..	23 9 0	8,789 14	1,650 6 9	
1916-17 ...	855 1 3	2,089 16	590 6 5	Charcoal worth Rs. 1,212 on hand at the close of the year.
Total ...	3,694 5 0	25,893 11	4,634 11 1	

The Divisional Forest Officer reports that under the present primitive conditions of manufacture it is almost impossible to produce charcoal at a low enough rate to compete with the supply from other sources, and advocates the introduction of a proper plant for the dry distillation of wood; the bye-products of charcoal, now wasted, would then become the main items of value, leaving charcoal as a residue of pure profit.

One hundred cubic feet fuel of the marginally noted species were sent at the suggestion of the Commissioner, S. D., from the Belgaum division to Mr. Shaligram, Industrial Inspector, Kolhápur, to be tested for charcoal and bye-products. The result of his experiments is awaited.

Teak (*Tectona grandis*).
Hela (*Terminalia belerica*).
Jamba (*Xylia dolabriformis*).
Kharsing (*Stereospermum xylocarpum*).
Biba (*Semecarpus anacardium*).

In Kánara Southern division, a coupe contractor was instructed in the manufacture of charcoal and the Divisional Forest Officer estimates the contractor's net profit at one rupee per maund of 56 lbs.

Rosha-grass.—A sample of grass, suspected to be "rosha" grass and sent to Dehra Dun for identification from the Belgaum division, was pronounced to be a different species (*Cymbopogon martini*).

Burrs on trees.—A consignment of "burrs" of casuarina, kindal, matti-heddi and savar was sent to Dehra Dun from Kánara Western division, for trial in veneering work and a report thereon is awaited.

(ii) Experiments.

Timber seasoning.—The Forest Economist, Dehra Dun, visited the experimental seasoning shed at Kodibág (Kánara Western division) and the experiments of seasoning different timbers under different methods undertaken by him in the Dándeli range (Kánara Northern division) and at Kodibág were continued, the seasoned logs at Kodibág having been sawn up into scantlings. The results of the experiments will be known next year.

Wood blocks for street pavement.—The teak and jamba paving blocks sent to the Bombay Municipality for trial in 1915 from Kánara Northern division were put down on an area of about 7,522 square feet of Frere Road—a road most heavily subjected to cart-traffic—and successfully passed through one complete monsoon according to the report received from the Municipal Engineer. Such wooden pavings ought to prove most advantageous in big cities like Bombay both from a financial and sanitary point of view and it is open to the public bodies and corporations to take due notice of the experiment tried with success in Bombay.

Junglewood sleepers for railway line.—The trial lot of matti (*Terminalia tomentosa*) sleepers supplied from Kánara Western division to the North-Western Railway and laid on 1st August 1911 was thus reported on:—

> "*With bearing plates*—Fifty-eight laid down of which 52 are in good order, 4 cracked at one end, not serious, 1 surface cracks, 1 badly cracked.
>
> "*Without bearing plates*—Fifty-eight laid down. 50 in good order, 4 cracked at one end, not serious, 3 surface cracks, in some cases somewhat serious, 1 seriously cracked but not sufficiently so to cause rejection."

In Kánara Western division, at the Conservator's suggestion, the experiment was made of cutting jamba (*Xylia dolabriformis*) sleepers from green trees of large size and then seasoning in shade, with a view to ascertaining whether this will overcome the difficulties of (i) heart-shake and (ii) cracking. Twenty sleepers of the usual measurements of teak sleepers that are annually supplied to the M. & S. M. Railway (6′ × 8″ × 4½″) were sawn out of one tree and are now seasoning in the forest bungalow at Gund. The Divisional Forest Officer reports that six of them show heart-shake more or less and the remaining 14 appear sound; none, however, showing any tendency to crack since cutting four months ago. Further observation is necessary before arriving at any definite conclusion.

Sylviculture Experiments.

Camphor seed.—In Kánara Central division, camphor seed was obtained from Formosa by Mr. Tuggurse, Extra Asistant Conservator, in charge Ankola range, and seedlings were successfully raised. They are to be planted out in selected areas in 1917-18.

In Kánara Western division, 50 camphor plants were put out round the Gudalli forest naka and are doing very well.

Junglewood seed.—The Divisional Forest Officer, Dhárwár-Bijápur, reports that the old unproductive method of sowing seed in piths several inches deep in vogue in Bijápur forests was ordered to be abandoned and one of sowing in pits refilled with earth and dibbling seed under shelter of bushes was sustituted coupled with tending of seedlings by weeding, soil-mulching and providing artificial shade wherever necessary. This change of method is reported to be productive of good results. Sowing of nim (*Melia indica*) seed was also tried in small ploughed plots in the Mandihal naka compound and in a last year's coupe in the Badámi range, and from the successful results obtained the Divisional Forest Officer is of opinion that a thorough breaking up of soil is essential for raising good seedlings.

In Kánara Eastern division, measurements of teak coppice were continued with a view to finding out whether the thinnings of clumps of shoots had a beneficial effect on the growth of the remaining shoots. The Divisional Forest Officer, Mr. Edie, states that so far as the experiment has gone the indication is that early thinnings of shoots are not beneficial and that thinnings should be made when the shoots are about ten years old.

Lantana, effective method of its destruction.—In connection with the attempts made in all divisions for the destruction and removal of lantana wherever it occurred, Mr. Dodgson, Divisional Forest Officer, Kánara N. D., reports:—

"The lantana which had been burnt and uprooted in a coupe in the Haliyal range in the previous year came up very, very sparsely. The new shoots which did appear were again pulled up and teak and honni plants introduced which promise well. The experiment of burning and uprooting lantana was carried out in other areas during the year under report."

Sind Circle.

The following exotics were tried in the Ráhuja garden:—

(1) *Acacia Farnesiana*, (2) *Butea frondosa*, (3) *Acer oblongum*, (4) *Bauhinia alba*, (5) *Cedrela toona*, (6) *Celtis australis*, (7) *Diospyros Embryopteris*, (8) *Terminalia belerica.*

Out of these (3), (6) and (7) failed to germinate. No. 8 germinated but subsequently the seedlings died. The rest are doing well. *Dendrocalamus strictus* planted last year along the water channels is flourishing.

In Lárkána nim (*Melia indica*) and bamboo seedlings are doing well, but the former plant failed in Hyderabad. In Jerruck tali was transplanted into the Kháthár forests and its average height is 8½ feet at two years from seed. Plants of 1915 and 1916 were still thriving in Kháthár, Ghárko and Khánáni forests. The experiment has shown that tali needs only care in its initial raising to enable it to take its chance in suitable parts of the forests of Sind with reasonable hope of success. It has been decided not to extend the cultivation of bamboos, as without prohibitive expense in watering they are not likely to reach marketable dimensions.

In Budká forest a greenwood coupe of 1916-17, measuring about 22 acres, was exploited semi-departmentally, *i. e.*, a contractor worked for a half share in the proceeds. The material was auctioned for Rs. 6,628. The outturn of the coupe was 258 timber pieces (3,913 cubic feet) and 77,229 cubic feet of fuel. The experiment was valuable both as serving as a guide to the normal yield per acre and as demonstrating the financial advantage obtainable under departmental working as opposed to the contract system. The Karáchi contractors had offered half the net price obtained for the coupe in question at the annual sales, though it must be conceded that the price of firewood rose between August 1916 and March 1917, the dates of the respective sales.

An experiment was made in order to test the wood of asri (*Tamarin articulata*) and bahan (*Populus Euphratica*) for making bobbins for cotton mills, but has been held up for the present as it is impossible to get these reinforced with metal according to the patterns furnished by the Secretary, Indigenous Industries Committee.

Tarwad seed has been obtained by the Deputy Conservator from Káthiáwár and Deccan and distributed to all Divisional Forest Officers to sow up in inland areas.

CHAPTER V.

ADMINISTRATION.

Northern Circle.

The circle was in charge of Mr. W. F. D. Fisher throughout the year.

Divisional charges were held as follows :—

Panch Mahdls.—Till 26th July 1916, Mr. W. C. Milne; from 27th July 1916 to 30th June 1917, Mr. B. J. Patel.

Surat.—Till 28th August 1916, Mr. R. W. Inder; from 29th August 1916 to 23rd November 1916, Mr. R. K. Kanitkar; from 24th November 1916 to 30th June 1917, Mr. A. C. Hiley.

North Thána.—Throughout the year, Mr. W. E. Copleston.

West Thána.—Throughout the year, Mr. B. H. Dalal.

East Thána.—Throughout the year, Mr. P. E. Aitchison.

South Násik.—Till 25th July 1916, Mr. D. R. S. Bourke; from 26th July 1916 to 30th October 1916, Mr. W. F. D. Fisher (in addition); from 1st November 1916 to 30th June 1917, Mr. J. B. Brooks.

North Násik.—Throughout the year, Mr. H. A. Bhadbhade.

Working Plans.—Throughout the year, Mr. P. E. Aitchison (in addition).

All officers worked well. The changes noted were necessitated by Messrs. Bourke, Inder and Milne being taken for the Indian Army Reserve of Officers.

Sub-divisional Officers.

Mr. L. S. Koppikar acted as Personal Assistant to the Conservator till 30th October 1916 when he assumed charge of the new independent charge of the Násik sub-division.

Mr. D. N. Damle was on leave till 18th February 1917 when he joined the Northern Circle and from the 2nd March to the 30th June he was Sub-divisional Officer, North Thána.

Mr. R. K. Kanitkar was Sub-divisional Forest Officer, Surat, from 24th November 1916 till 5th March 1917 when he was transferred to East Thána.

Mr. K. E. Kotwal served as Sub-divisional Forest Officer, East Thána, till 30th March 1917 when he was transferred to Surat sub-division.

Mr. V. G. Bhalerao was Sub-divisional Forest Officer, West Thána, throughout the year.

Extra Assistant Conservators on probation :—

Mr. N. C. Ramchandani was in charge of the South Godhra range (Panch Mahals division).

Mr. Y. R. Divekar was in charge of the Galkund range (Surat division).

Messrs. Koppikar, Kotwal, Bhalerao and Ramchandani are mentioned as having worked exceptionally well throughout the year.

All divisonal offices were examined during the year except Surat and South Násik.

The office establishment worked satisfactorily, but there is great need of improving the standard of ability as it would effect economy in many directions.

The protective staff (with the inevitable exceptions) also did well in trying and hard circumstances. Here again some greater liberality would be true economy.

Casualties.—There were 29 deaths or rather over 2¼ per cent. of the total staff within the year, resignation 25 or just 2¼ per cent. and retirements 9—total 5 per cent.

Discipline.—Dismissals 12, services dispensed with 33, degraded 9, suspended 2 and fined 181.

These figures showing a dissolution by death, discipline and discontent of 8 per cent. of the total staff within the year indicates some lack of economy and postulates inefficiency.

Recruitment.—Extra Assistant Conservator, Mr. Ramchandani, continued his probation and is now competent to be confirmed in the Provincial Service when vacancy occurs. Mr. Y. R. Divekar reported himself for duty from Dehra Dun as an Extra Assistant Conservator on probation.

Range Officers.—Of two students selected in 1914-15, who completed their course in March last, one has resigned. Of two selected in 1915-16, one resigned while at College. Of four students selected in the year under report, one resigned after completing the preparatory tour. These resignations have necessitated nine recruits being asked for in 1917-18, but only six can be accommodated at Dehra Dun. Of twelve additional rangerships required by expanding work in the circle, only three have been sanctioned, the other ranges are being held by foresters on wholly inadequate pay. Matters are less satisfactory in the foresters' and guards' grades.

The relations of Forest with Revenue officers have been uniformly satisfactory.

Central Circle.

Mr. L. Napier held charge of the circle throughout the year, as also did Messrs. D. A. Thomson, C. E. L. Gilbert, H. W. Starte, C. G. Dalia, V. D.'P. Ribeiro and A. F. Gonsalves of their respective divisions of Poona, Sátára with the superintendentship of Mahábleshwar in addition, North Khándesh, Kolába, Working Plans and West Khándesh. In East Khándesh alone was there any change in divisional officers, Mr. R. P. Dalley being transferred to the Indian Army Reserve, and being relieved from July 2nd, 1916, by Mr. R. V. Pethe, the sub-divisional officer, who then remained in additional charge until relieved of the sub-division by Mr. E. O. Sampson from Sátára from January 11th, 1917.

Messrs. R. A. Shirali and G. S. Dangi were the sub-divisional officers in West Khándesh and Kolába respectively throughout the year, and Mr. G. R. Patker in North Khándesh except for one month during which he was on leave. Mr. A. N. Master held the Poona sub-division for six months and was then transferred to Sátára, being relieved by Mr. B. J. Joshi who had till then been attached to the former division as instructor of the Foresters' Class and additional sub-divisional officer.

Two Ranger class students from Dehra Dun joined the circle, both with higher standard certificates, and two new students and one who had been selected in 1915-16 but whose ill-health necessitated his leaving the college, were sent up for the 1917—19 course.

Thirteen students out of 16 nominated successfully passed through the Foresters' Class held at Poona, but there is an ever increasing difficulty in obtaining from the existing subordinate protective staff men of sufficient educational qualifications to profit by the instruction, and the nomination of outside candidates will probably become inevitable; unfortunately such candidates cannot be guaranteed immediate appointments on passing, and without such guarantee they are loath to come forward. And as few educated men are willing to take up forest guards' appointments and to learn their work in those low paid grades, future prospects are not hopeful. Recruitment is everywhere most difficult of the class of man that present-day conditions demand.

Similarly, there is a great dearth of qualified candidates for the post of junior clerks in range offices, more especially in those in backward and unpopular districts like Khándesh.

All Divisional officers worked with great energy and were well supported by their Assistants; and the good services of many Range officers have been brought to the Conservator's notice for special zeal in fire protection or sylviculture or general good administration of their charges. Promotion, however, is slow and prospects poor, and opportunity for rewarding good work is unfortunately seldom possible. Office establishments are generally favourably reported upon. The Conservator's head clerk, Mr. N. H. Damle, retired after 33 years' faithful and efficient service to Government.

Casualties were 22 deaths, 21 resignations, 32 dismissals and 24 retirements. One temporary depôt officer in East Khándesh was prosecuted for defrauding Government; his case is pending.

The civil suit, referred to in last year's report, in which a contractor had instituted a suit against Government on account of cancellation of his contract, was decided in Government's favour, the contractor bearing his own costs.

The Akráni pargana in North Khándesh was administered by the Divisional Forest Officer with, as the Collector records, sympathy and discretion; extracts from Mr. Starte's report are given below:—

"The Akráni pargana which comprises 1,94,683 acres of reserved forest and about 50,000 acres of revenue land continued to be administered by the Forest Department.

"In all Akrani revenue land comprises some 148 villages of which 118 are occupied. Sixty-seven of these are surveyed and the boundary marks were kept in repair by the various patels who received Rs. 150 in rewards for this work. There are also eight in-forest-settlements and two jahágir villages in the pargana.

"The assessment received from cultivated lands amounted to Rs. 3,586. There is a steady rise in the area brought under cultivation as shown by the assessment figures given below:—

		Rs.
1912-13	...	2,507
1913-14	...	2,828
1914-15	...	3,219
1915-16	...	3,356
1916-17	...	3,586

"The rate of assessment which is annas 4 per acre, except at Toranmal where it is annas 2, is too low in many villages, and at the request of the Collector of the district a report was submitted in 1915-16 on this question and also as to the advisability or otherwise of introducing the permanent survey settlement. The matter is in abeyance.

"The contribution to the local fund amounted to Rs. 228-7-3.

"The collection of tagái outstandings made good progress and no money was written off during the year. Rs. 6,483 capital *plus* Rs. 1,024-11-0 interest were repaid as against Rs. 8,147 and Rs. 1,134 respectively last year. During the year fresh tagái advances amounting to Rs. 1,000 were made as compared with Rs. 4,000 last year.

"The rainfall was satisfactory and general crops good. The mhowra crop was gain poor.

"On the whole the health of the people was good, but a mild outbreak of small-pox occurred in the villages of Bhusia, Mál and Bilgaon in the middle of April, and at Toranmal in the middle of June. Only one case was fatal—at Bhusia.

"Early in May foot and mouth disease (locally known as 'Kurmund') broke out among the cattle and several succumbed to the disease.

"Seven years ago two Government stud-bulls, one Sonkhairi and one Thilári, were brought up to Akráni. Privately owned cows were then collected together to graze with the bulls. This was not popular with the people for they do not like to let their cattle leave their homes. Accordingly, the Sonkhairi bull was temporarily handed over into the charge of the patel of Bhogwáda to graze with the cattle of his village, and the Thilári was given into the charge of the Revd. A. P. Franklin of Mundalwad. Accurate figures have not been obtained but the Mahálkari reports that in all 42 cows were covered and 13 healthy calves produced. During the year the Sonkhairi bull lost one eye in a fight but otherwise both bulls are healthy. They are probably now past their prime for breeding, and if new bulls are supplied it would be better to provide somewhat smaller bulls of the short-horned variety, as the Akráni cows are rather small. During the year Government paid Rs. 30 towards the maintenance of the two bulls.

"The Government primary school at Dhadgaon and the Mission school at Mundalwad continued to do well, but the Government school at Kámod is still not popular.

"Owing to the war, less money was spent on repairs and improvements of bridle paths, but 95 miles of bridle paths were repaired, and the cart-track from Dhadgaon to Mundalwad improved at a cost of Rs. 380-8-0. During the year a district bungalow has been completed at Dhadgaon. It should be fully furnished.

"Owing to lack of funds no new chawdis have been built although they are required at Mundalwad, Mándvi, Bhusia and Domkhedi. It is very uncomfortable for the Mahálkari and taláties to move about in the rains owing to lack of suitable accommodation. At present there is only one chawdi out of Dhadgaon, *viz.*, at Chanseli.

"The provision of a Government dispensary at Dhadgaon for which plans and estimates have already been prepared is still urgently required. Its construction should not be delayed longer than is absolutely necessary.

"Out of the grant for improvement of village water supply a well was sunk at Telkhádi at a cost of Rs. 300, one-third of the cost being borne by Government and two-thirds by the people (Rs. 100 in cash and the equivalent of Rs. 100 in labour). Blasting was required and the upper portion has been properly lined with stone and cement.

"No cases were tried by the Divisional Forest Officer as second class Magistrate although he was instrumental in settling various complaints by arrangement between the parties. Eight cases were tried by the Mahálkari (the Range Forest Officer) in his capacity as third class Magistrate for abkári cases only. In all 11 persons were tried by him and all convicted, one being sentenced to imprisonment, and fines amounting to Rs. 160 being recovered from the rest.

"Akráni revenue lands contain many well wooded areas indistinguishable from forest proper; hence in June 1913 the more thickly populated portion was put under a simple working plan to regulate the cutting of firewood and supply of hutting material. The former is given free, and the latter on low fees. Owing to the supply being greater than the demand the demarcation of coupes is in arrears but it will be necessary to lay out new coupes next season. During the year 7,806 acres of revenue forest were burnt as compared with 99 acres last year.

"In general the year was one of steady progress accompanied by contentment of the people."

In North Khándesh in-forest-settlements, to provide for labour for fire protection and other forest works, were maintained and extended with good results both to Government and to the settlers, and the general contentment and well-being of the latter was very marked. Under the easy terms given by the department land is in great demand, cultivation is good and careful, and little trouble experienced in recovering tagái advances. Proof of the well-being and contentment was afforded in one case by an application from three adjacent settlements, and which has been forwarded to the Educational authorities, to be provided with a joint primary school. In East Khándesh

in the uninhabited hills the necessity for such settlements is a matter of great urgency, but so far attempts at forming them have met with little success, partly owing to the land being less suitable for cultivation, partly to the settler available not being by nature and habit of a good cultivator stamp. But all forest progress in the East Khándesh Sátpudas depends on the introduction of settlers, and efforts will be continued.

Southern Circle.

The charge of the circle was held by Mr. T. R. Bell throughout the year.

Messrs. Dodgson, Edie, Marjoribanks, Butterworth, Limaye and Koppikar continued in their charges of Kánara Northern, Kánara Eastern, Kánara Western, Kánara Central, Kánara Southern and Dhárwár-Bijápur divisions, respectively, throughout the year.

Mr. Hodgson continued in charge of the Belgaum division for the first 8½ months of the year up to 15th March 1917 when he left to undertake special military work as Timber Supply Officer in Bombay. For the remainder of the year Mr. Miller, Divisional Forest Officer, Working Plans, held charge of the division.

The Ratnágiri division continued to be in charge of the Collector, Mr. J. P. Brander, I.C.S., throughout the year.

There was no change among the Sub-divisional Officers. Mr. Bendigeri was transferred from Kánara S. D. as an additional Sub-divisional Forest Officer in the Belgaum division in May 1917 to assist in timber supplies required by the Military Department.

Kánara W. D. badly needs an energetic Sub-divisional Forest Officer; Mr. Shrigley, who was posted there by Government during the year, has not arrived.

The Sirsi range of the Kánara Central Division was divided into two—the Sirsi East and the Sirsi West ranges during the year.

The candidate, Mr. Jagan Nath Dutt, nominated by Government for the Provincial Service Course of 1917—19, satisfactorily underwent his three months' practical training in this circle and joined the Imperial Forest College, Dehra Dun, in April 1917.

The three candidates deputed for the Rangers' course of 1915—17 passed the final examination and were posted as Rangers in Belgaum, Kánara E. D. and Kánara C. D. More Rangers are wanted.

For the Ranger's course of 1916—18 three candidates were nominated and sent up to Dehra Dun during the year.

The Belgaum Forestry Class was as usual conducted by Mr. Hattiangadi, Sub-divisional Forest Officer, Belgaum, in addition to his own duties. Of the nine students sent up from the different divisions, eight passed and one failed at the final examination.

The Conservator visited all the divisions of the circle except Ratnágiri and all the divisional offices were inspected. Range offices situated at the head-quarters of each division were also examined with a view to see whether the several instructions and standing orders issued at the detailed inspection last year have all been properly followed. No serious irregularities were noticed.

Land Revenue Administration.

Kánara N. D.—The three forest mahál, *viz.*, Dandeli, Virnoli and Kulgi comprising 23, 12 and 11 villages, respectively, in the Haliyál taluka of the Kánara district were started from the 1st August 1916, the respective Rangers being *ex*-officio Mahálkaris and the Divisional Forest Officer, *ex*-officio Assistant Collector. The Divisional Forest Officer states that one village which had been depopulated for many years was partially occupied and that every endeavour is being made to induce people to settle in these forest tracts.

Kánara E. D.—The two mahals, *viz.*, Bilki and Kirwatti, the latter newly started during the year from 1st August 1916, were successfully administered

by the respective Range Officers under the supervision of the Divisional Forest Officer, the *ex*-officio Assistant Collector.

The Devikop mahál of four villages in the Kalghátgi taluka of the Dhárwár district, administered by the Divisional Forest Officer, Dhárwár, from 1st August 1913, was split into two, *viz.*, Devikop and Kargod, comprising three and one villages, respectively, for administration by the Divisional Forest Officers, Kánara N. and E. divisions, from 1st May 1917.

Kánara W. D.—The revenue charge of the Supa mahál consisting of 120 villages was handed over to the Divisional Forest Officer, Western division, from 1st August 1916. He states :—"It is somewhat too early to judge of the effects of this change from the point of view of general administration; when the Divisional Forest Officer can find time for only a limited amount of ordinary village inspection—a fact which postulates the retaining of a good and trustworthy Mahálkari in the Petha—it is already clear that holding the revenue charge simplifies forest work in certain directions. What the people do in their fields matters very much to forest protection and in particular to the annual fire record; and it is of the first importance that the giving out of waste lands on easy terms should be supervised by one directly interested in maintaining a population for forest works. It would be difficult to speak too highly of the help given by the Mahálkari, Mr. M. S. Hegde, in trying to induce the people to greater care in the use of fire, more economy in the use of tree growth and more diligence in undertaking forest labour in the off-seasons."

No new kumri assignments were given during the year.

Belgaum division.—The Belgaum range mahál and the Khánápur West range mahál were successfully administered. It is reported that, though the kumri villagers avoided forest works, efforts made to induce them to patronise such works were successful, particularly in the latter mahál.

The policy of giving out forest land suitable for cultivation was continued.

Betta assignments.—The Divisional Forest Officer, Kánara S. D., states that all the work in connection with the betta assignments in the Sirsi and Siddápur talukas has been finished.

Hunting and shooting.—

		1916-17.	1915-16.
Game licenses issued	...	No. 43	No. 48
Breaches of game rules brought to light	.	„ 2	„ 4
Fines recovered for breach of rules	...	Rs. 100	Rs. 155
Rewards paid for reporting illicit shikár.		„ 30	„ 50

Casualties and punishments.—The health of the subordinate forest staff was satisfactory everywhere except in Gund and other malarial parts of Kánara W. D. A liberal supply of quinine treatments was made to all the establishment as usual. The casualties were :—

Seventeen men—1 forester, 12 guards, 2 clerks and 2 peons—died as against 16 in 1915-16.

Twenty-three men—1 ranger, 6 foresters, 13 guards and 3 head clerks—retired as against 22 last year.

Thirty-nine men—37 guards and 2 peons—resigned as against 38 in the previous year.

Punishments—

Year.	Fined.	Degraded.	Suspended.	Superseded.	Dismissed.	Prosecuted.	Total.
1916-17 ...	456	13	10	22	6	3	510
1915-16 ...	396	31	29	46		9	511

Criminal offences.—The particulars of the three prosecutions instituted during the year are :—

Division.	Subordinate prosecuted.	Charge.	Result of prosecution.
Kánara W. D. ...	1 Forester ...	Theft of Government money. Rs. 99-14-7.	1 month's imprisonment and Rs. 100 fine.
Kánara W. D. ...	1 Guard ...	Absconded with Government money. Rs. 8-11-0.	Complaint withdrawn, the offender not being traced; lost money is being recovered from the arrear pay due to him.
Kánara S. D. ...	1 Guard ...	Misconduct ...	Under trial.

The appeal of the forester and two guards of Kánara E. D. in the torture case, mentioned in the last report, was rejected by the High Court.

The relations between the Revenue and the Forest officials as usual have been satisfactory.

Services.—The Divisional Officers have all worked well, but have had little rest owing to extra duties imposed upon them for timber supply for military purposes in Kánara W. D., N. D. and Belgaum. The Sub-divisional Officers have also done well. In the Ranger grades the Conservator would like to mention Messrs. Mudchatkar, Hasabnis, Nerlekar and Rego in Kánara and Mr. Rege in Belgáum for hard work and attention to duty. The Conservator's Personal Assistant, Mr. Chandavarkar, has been as indefatigable as ever and Mr. Bellare, the Conservator's Head Clerk, again deserves mention. Also Mr. Nagarkatti and the Conservator's camp clerk, Mr. Mavinkurve, have worked very hard. Taken as a whole the office members have acquitted themselves creditably.

The Divisional Forest Officers report that the work of guards and most of the foresters is far from satisfactory and that it is most difficult to obtain good recruits, the hard, strenuous, lonely life on low pay not being attractive to able-bodied men, who can earn better wages in other departments of the public service or in private firms, factories, mills, railway works, etc. It often occurs that the uneducated, irresponsible cooly, who is supervised by the guard, receives higher wages than the guard, who is generally literate and has a fair amount of responsibility attached to his post. This is not as it ought to be. If guard's minimum pay be fixed at Rs. 10 per month and his service made superior as in the Police Department, it might attract men of the right stamp, render recruitment less difficult and improve the tone of the establishment considerably. On a full discussion of the subject in the Forest Conference of 1913, certain proposals were submitted to Government, who have in their Resolution No. 2683 of 5th March 1915, Revenue Department, postponed the issue of final orders in the matter. In view of the fact that the pay and prospects of the policemen have been further improved recently, an early consideration of the case of forest subordinates would improve matters.

Preliminary proposals for increasing the staff of Rangers were submitted to Government at the close of the year; orders thereon are awaited.

Sind Circle.

The Sind circle was in charge of Mr. G. R. Duxbury throughout the year.

Mr. V. R. Mirchandani held charge of the Sukkur division during the absence of Mr. A. C. Robinson on three months' privilege leave, in addition to his own duties as Sub-divisional Forest Officer. Proposals sent up during the year regarding the partition of the Sukkur and Lárkána divisions into three charges with Mr. Mirchandani as the new Divisional Forest Officer,

Shikárpur, have been recently sanctioned by Government. The new arrangement will enable each officer to thoroughly inspect his charge, especially the erosion fellings and kachas; this was formerly a physical impossibility for the Divisional Forest Officer, Sukkur, who has not been provided with a steam launch.

Under the sanction of Government the officers in charge of the Lárkána and Hyderabad divisions changed stations. The Jerruck division remained throughout the year ably administered by Mr. Newman who completed his sixth consecutive year of charge during the year under report.

In accordance with Government orders proposals asking for extra Rangers required for the Sind circle were forwarded. The Sind forest staff were less favourably treated than those of any other circle in the Bombay Presidency at the last reorganization and only 55 per cent. of the ranges received Rangers. These proposals were returned for incorporation into a consolidated scheme for all forest subordinates in the Bombay Presidency and fresh proposals dealing with the need for more foresters and the increasing of the pay of the Sind forest guards were forwarded before the close of the year.

It was found necessary for a time owing to the paucity of suitable officers, to work the Rohri and Rádhan ranges as sub-ranges under the Sadhuja and Lárkána ranges respectively. The position was again restored after the close of the year under report.

The four surveyors in the Working Plans office formerly on the temporary establishment were made permanent from the 1st April 1917 under Government Resolution No. 3452 dated 28th November 1916. These men are now on graded pay instead of receiving biennial increments, and will be attached to divisional offices in the places of the present temporary men when working plans have been completely revised.

On the whole, the standard of work improved throughout the circle. Among the Rangers Mr. Rodrigues now in Hyderabad division, Messrs. Nenumal and Mewaram in Jerruck division and Messrs. Kotumal and Dalpatrai in the Lárkána division deserve special mention. The first-named is easily the best Ranger in Sind.

The office establishment worked well. Unfortunately the moral stability of many of the members of this, as well as of the protective establishment, is not equal to their industry. There is moreover still a good deal of careless work. The Deputy Conservator can recommend the Head Clerk of the circle office, Mr. Imdadali Mahomed Ashraf Kazi, for his integrity and devotion to duty.

Efforts to recruit candidates from youths who have passed the School Final Examination have been fairly successful during the year.

Forest students, Dehra Dun.—Mr. Gianchand Madhok, Ranger, reported for duty early in April, and was posted under Mr. Rodrigues but owing to the paucity of officers had very shortly to take up an independent charge in the Sukkur district.

The reports on the two candidates of 1916—18 class, on the whole, are not encouraging. Mr. Deputy Lal Kishori Lal Sharma, probationary student for the year 1917—19, received practical training under the Deputy Conservator, and the Divisional Forest Officer, Jerruck, and left for Dehra Dun in March 1917. This student who is a son of a native officer of the 10th Lancers now serving in Mesopotamia has started well.

All the divisional forest offices and that of the Working Plans Assistant, were inspected by the Deputy Conservator during the year, who also personally inspected 11 range offices in the circle. The rules laid down by the Forest Conference of 1916 have been adopted and many new registers opened in consequence.

All Divisional Forest Officers with one exception worked well throughout the year as did the Sub-divisional Forest Officer, Sukkur.

Good progress has been made in the classification of records in all offices, arrears are chiefly in the Direction office, where it was found possible this year to carry out 20 years' classification of records during the touring season. Conservator's circulars for the past 40 years were personally classified and indexed by the Deputy Conservator, and indices distributed to all Divisional Officers, who were ordered to withdraw obsolete circulars from their files and classify those left in accordance with instructions.

The following casualties occurred during the year. These are arranged under the head of superior service Rs. 12 and over, and inferior service upto Rs. 10, as requested by the Commissioner in Sind in his review of 14th October 1916:—

Division.	Deaths.	Casualties.					Discipline.			
		Retirements.	Resignations.	Dismissals.	Services dispensed with.	Percentage.	Degradations.	Fines.	Supersessions.	Percentage.
Sukkur.										
Inferior	...	...	2	3	16	15·11	6	65	...	56·98
Superior	...	3	...	1	1		7	19	...	
Larkana.										
Inferior	...	...	3	...	2	9·4	4	12	...	25·0
Superior	3	1	...	...	...		...	...	...	
Hyderabad.										
Inferior	...	...	...	1	...	2·8	2	1	...	4·1
Superior	1	...	...	...	...		...	...	...	
Jerruck.										
Inferior	1	...	23	2	...	27·2	...	7	...	10·9
Superior	...	...	...	...	...		...	3	...	
Working Plans.										
Inferior	...	...	...	...	...	...	...	...	...	...
Superior	...	...	...	...	...	...	...	...	...	...
Total.										
nferior	1	...	28	6	18	13·3	12	85	...	24·02
Superior	4	4	...	1	1		7	22	...	

As usual the heaviest punishments were inflicted in the Sukkur division where the old staff was thoroughly demoralised some years ago. The fines and degradations inflicted on officers of the superior service refer to Sub-rangers on Rs. 12, who are almost entirely illiterate, and are merely promoted beat guards. The large number of resignations shown in Jerruck refers chiefly to the men in the ranges where the forests are flooded by the inundation. These men were drafted on to the inland forests of Katiar where artificial regeneration is in progress, and showed their discontent by resigning. The proximity of Karáchi where ordinary coolies receive as much as 12 annas per diem also very much affects the recruitment of Jerruck, causing the beat guards to refuse to serve on Rs. 9 and Rs. 10 per month.

Relations between the Revenue and Forest Departments continued to be cordial during the year.

A theft of Rs. 373-5-11 occurred in the Sadhuja range forest office when in the charge of the Range Forest Officer, Ghotki, in adition to his own duties. After a careful enquiry by the Divisional Forest Officer, Sukkur, and personal inspection of the premises by the Deputy Conservator, Sind Circle, a report was made to the Commissioner pointing out that both Ranger and clerk were guilty of carelessness, and the money was ordered to be made good from these officers by 12 monthly instalments from their pay.

CHAPTER VI.

GENERAL.

Northern Circle.

The most notable event of the year was the visit of the Inspector-General of Forests with the object of discussing, in the forests, the revision of all the existing working plans of the Thána divisions—this revision to be under one plan which was then being drafted. It is satisfactory to see from paragraphs 10 and 11 of Mr. Hart's Inspection Note, dated 16th April 1917, which is on record, that the treatment proposed met with his approval.

Not less valuable is the Inspector-General's reference to the gurcharans of the Thána district. A revised working plan on the lines suggested by him in paragraph 15 of his Inspection Note had been drawn up in the previous season (1915-16) for the Central Thána division by the orders of the Conservator, but reference to Government in the matter was postponed for several reasons which were mainly, (i) that it was advisable to first complete the revision of the forest plans then in hand, (ii) that Government should have an opportunity of considering the representations of the Collector regarding the management of the gurcharans, (iii) that the Inspector-General might record his opinion during his forthcoming visit, (iv) that proposals for the much needed reorganization of the protective staff then being prepared might be considered by Government and (v) that officers migh acquire a knowledge of their new charges under the Thána divisions reorganization scheme. These matters having now sufficiently matured, the permission of Government to the complete preparation of the proposed revision is being asked. The importance of this matter lies in the fact that the gurcharans in question are equal in area to, and of greater commercial value than, a Thána forest division. If the proposals to be made are sanctioned, the revenue from gurcharans should rise from two to seven lakhs of rupees and benefit every inhabitant of the country-side.

During the year the Committee appointed to consider the development of indigenous industries commenced its enquiries. A written statement on the subject, asked for by them, was duly submitted and from time to time during the year the specific requirements of many individual industries, *e. g.*, bamboos for pulp, timber for matches, picture-frames, bobbins; firewood for glass making; gum for resin, etc.; grass for oil; barks, etc., for tan; and others, have come up for consideration, all pointing to the conclusion that the industrial welfare of the country is directly dependent, like forest revenue, on the development of forest-management along the most scientific lines.

It is impossible to refrain from mentioning here the ceaseless and increasing difficulty which has been experienced throughout the year in endeavouring to carry out urgent works and even in arranging for routine duties owing to (i) the shortage and inefficiency of the present protective staff and (ii) the lack of the ordinary amenities of life of that staff in the more unhealthy and out-of-the-way localities in this circle. Reorganization proposals have been submitted. The money required to give effect to those proposals is but a fraction of the immediate additional revenue anticipated by proposed improvements in working. It is, therefore, earnestly hoped that the much-needed relief will be accorded.

Central Circle.

Rainfall was good throughout the circle and the year was a prosperous one for trade and forest revenues. And that the prosperity will continue, looking to the increasing world demand for forest material and the scope that exists for development of industries now untouched, is a matter beyond question of doubt.

From the nature of its forests, the circle could make few direct contributions to war requirements, for the Deccan divisions are not even self-supporting in forest material but depend largely on imports from elsewhere. But war demands for small timber, fuel and grass had a marked effect in Khándesh, as was evidenced not only by the demand for coupe material but by the fact that

accumulated stocks in contractors' hands were completely cleared off by the end of the season, a happy state of affairs to which the timely, though unexpected provision, of wagons by the railways largely contributed. A demand for grass was indeed made by the Military authorities in January, and was met by the department putting all its resources at the disposal of Mr. Bhiladwalla, its famine fodder contractor in West Khándesh, and enabling him to meet and fulfil a contract that he had entered into with the Military department.

For the current year revenue prospects are even more favourable than in the one under report.

Southern Circle.

The importance of forest resources of the Southern Circle was duly recognized by Government during the year, and some preliminary measures for the development of forests were undertaken. The urgent necessity for good roads to open up valuable areas was realized and one of the most important and difficult roads—the Kadra-Gund Road—in Kánara W. D., undertaken, is nearing completion. A special Engineer was deputed for the improvement of the most useful waterway for floating timber in Kánara W. D.

Mr. Haines, Executive Engineer, Dhárwár district, deputed to the Forest Department last year on the work of improving transport facilities, after making a preliminary examination of the bed of the Kálinadi river, reverted to his appointment in Dhárwár and in accordance with the recommendation of the special conference of the Commissioner, S. D., the Conservator of Forests, S. C., and the two Secretaries to Government, Public Works Department, Mr. Pipe, Executive Engineer, Ahmednagar district, was deputed to proceed with the work for seven months from 15th November 1916 to 15th June 1917. During this period he surveyed the whole of the Kálinádi from below Jogáli slide to the tidal limit above Kádra, with a view to preparing a project for improving the floating channel. He also prepared a rough survey of the Káneri river from a point called "Durga Seri" to its junction with the Kálinadi. About half the blasting work preliminary to the possible evolution of a floating channel for logs along this most difficult nala was carried out by him and two trial dams of wood and masonry were constructed to head up the water in one main channel. It is to be seen how they will have stood the year's floods. Mr. Pipe's work was carried out with energy and determination under the most adverse circumstances as regards labour and supplies. His final report on the double project is awaited.

Government having sanctioned the survey of the line (16 miles) for the light forest railway from Dandeli to the Alnávar Station of the M. and S. M. Railway; the survey was made by an officer of the Railway company. Details regarding construction and management are under consideration. This forest railway is calculated to help the exploitation in Kánara N. D. to a considerable extent.

In addition to the two steam saw-mills working in Kánara N. D. three new steam saw-mills were procured for the other three important divisions of Kánara, which are being erected and will commence work in this fair season.

Fire protection and sylvicultural operations were conducted on an extensive scale, special parties being appointed for the purpose. The only retrograde step of the year was the curtailment of expenditure on buildings and wells so as to utilize the money on operations of a more urgent and remunerative character. Data for the preparation of a working plan for the Bijápur forests was collected and that for the forests of Kánara S. D. is to be collected shortly; endeavours are being made to bring the whole area of the circle under regular working plans as soon as possible and to revise such of them as have become due for revision. Large areas of pasture forests in the Dhárwár and Bijápur districts in charge of the Revenue Department having been neglected, proposals were made for their re-transfer to the management of the Forest Department and these have recently been submitted to Government. It is hoped that these areas will soon return to this department to the mutual advantage of the ryot and the State. The

Ratnágiri forests unfortunately are worked at a net annual loss of about Rs. 3,000. The forests are small, scattered scrub jungle and produce no valuable material; the Collecter in charge states that a reorganization of the forests and establishment is necessary and that proposals for the same have been submitted by him to the Commissioner, S. D.

The financial results of the year, bringing in nearly a quarter of a crore of revenue, are most encouraging; with more intensive management combined with good roads and other facilities for the systematic exploitation of the produce, it would not be too much to hope for a sustained annual revenue of half a crore and over in the next quinquennium.

The Inspector-General of Forests visited the circle and made a detailed tour for about a month in February 1917 through the important forests of Kánara N., E., C. and W. divisions and Belgaum with a view to advise on working plans.

The Tanning Expert to the Government of India visited Belgaum and neighbouring towns to make a survey of tanning products of the country and of local private tanneries.

The Forest Economist paid a visit to Kánara W. D. and N. D. in connection with the experiments of seasoning different kinds of timber under different methods.

The Timber Supply Officer of the Military Department, Bombay, visited Ankola in Kánara C. D. about the timber supplies required for war purposes. Arrangements have been made for the regular despatch of timber and bamboos in large quantities from Kánara N., E., C. and W. divisions and Belgaum.

Labour supply was again deficient in the Khánápur ranges (Belgaum) as also in the Gund range of Kánara W. D. and, generally, in Kánara N. D. Notwithstanding the exertions of the revenue authorities in securing labour and carts in Khánápur the annual delivery of fuel to the Railway Company fell short by 8 lakhs of cubic feet. In Kánara W. D., the labour supply was sufficient for all work on the coast, even the extra contracts for supply of war material being carried out without any difficulty. It is only above ghats in Gund and in Kánara N. D. that scarcity of labour is severely felt. In these parts, the villages are practically uninhabited and labour has to be imported from the coast. As people on the coast find work near their homes, they naturally often refuse to go above ghats. The only solution of the difficulty appears to be to get the deserted villages inhabited again by giving out suitable cultivable land on easy terms. Messrs. Dodgson and Marjoribanks, who are *ex*-officio Assistant Collectors for forest mahals in Kánara N. and W. divisions, are taking a keen interest in their land revenue administration and try to improve matters.

The Berad (Criminal Tribes) Settlement, established by Government at Shiroli in the Khánápur taluka of the Belgaum district for the supply of forest labour, was started in March 1917 and the number of Berads gradually rose to about 100 including some Lamanis from the Bijápur district. Their services were utilized for various forest operations.

During the working season plague and cholera were prevalent in Kánara N. D. with the result that the work of carting contractors was much hindered.

At the Tavargatti depôt and Alnávar station in Kánara N. D. great difficulty was experienced by contractors and purchasers in removing their material owing to the shortage of wagons on the railway, caused by war requirements. The Divisional Forest Officer apprehends that this may affect prices adversely in the coming sales if this state of things continues.

The new timber depôt, established on the coast at Tádri in Kánara C. D. last year, was removed to a more satisfactory site further up the river at Divgi.

The enumeration of sandalwood trees in malki lands of the Dhárwár district, undertaken in 1913-14, was continued during the year, and the Forester, specially put on the work, counted 32,060 trees in 42 villages of the Dhárwár taluka. According to the figures furnished by the Mamlátdárs the total number of sandalwood trees standing in malki lands of the Bijápur

district, excluding the Badámi taluka, for which figures have not been received, are 3,043 in 188 villages. Steps are being taken to have a correct enumeration of the trees made in both the districts as soon as possible.

The Collectors of different districts make the following remarks in forwarding the several reports :—

Kánara(By Mr. J. H. E. Tupper) :—

Kánara N. D.—" Fifty per cent. of the total area is closed to grazing and it is observed that the number of impoundings shows a marked increase.

" Mr. Dodgson administered three small forest maháls as *ex*-officio Assistant Collector in addition to his work as Divisional Forest Officer. He has been very successful in his dual capacity. He is the only Divisional Forest Officer who reports a serious attempt at repopulation of the deserted villages. One village has partially been reoccupied. It is interesting to note that Mr. Dodgson has been convinced by the acuteness of the labour question that the only solution is to get the depopulated villages inhabited again. We are now trying to work out a scheme of in-forest cultivation which will effect this purpose."

Kánara E. D.—" Mr. Edie administers two small forest maháls as *ex*-officio Assistant Collector in addition to his work as Divisional Forest Officer. His administration in both capacities has been most successful."

Kánara S. D.—" The large increase of fires in the Siddápur range in a year in which fires generally have greatly decreased is said to be partly apparent only and partly due to scarcity of fuel, driving people to the manufacture of dead-wood by firing the forests. It is hoped that the establishment of the fuel depôt at Siddápur will eliminate the second cause."

Kánara W. D.—" Mr. Marjoribanks administers a very large area, larger than the biggest taluka of the district, as *ex*-officio Assistant Collector. His administration, both as Divisional Forest Officer and as Assistant Collector, is worthy of the highest praise, and a most promising start has been made in the experiment of forest maháls.

" It is a matter of extreme difficulty to get the subordinate magistracy to realize their duties in dealing with small forest cases. The District Magistrate has issued clear orders on the subject for their guidance and hopes for improvement. These cases are carefully watched.

" Undersigned has inspected a fair amount of kumri in company with the Divisional Forest Officer and investigated the economic condition of some of the kumri villages personally. In view of the knowledge thus acquired the Collector entirely agrees with the views expressed by the Divisional Forest Officer.

" Arrangements have been made for the final disposal of cases in which bettas have not been accepted in order that the gardeners may have no legitimate cause of complaint and no pretext for protracting proceedings.

The greatest obstacle to the development of all forest operations is the scarcity of labour, and every possible means must be availed of to increase the supply to meet the inevitably and rapidly increasing demand. The best means of increasing the local supply is in-forest cultivation to which Mr. Marjoribanks alludes in his paragraph 102. A scheme is under consideration to attract agricultural labour, which can be utilized for forest purposes, by the offer of land on exceptionally favourable terms. As Mr. Marjoribanks observes labour has a natural tendency to gravitate below ghâts, and below ghâts the Revenue Department can do but little to attract additional population by giving out land on favourable terms because the entire area of assessed waste land available for expansion of cultivation below ghâts is limited to about 10,000 acres, much of which is not very attractive quality."

Belgaum (By Mr. E. L. Sale) :—

" The early construction of the road from Gunji to Shiroli is most advisable. The cost of construction would very soon be recouped by the larger supplies of wood that would result from the provision of a proper cart-road. The experience gained over the Kanbárgi-Múchandi road shows how the absence of cart-roads deters contractors from bidding freely for coupes.

"The system of allowing reduced rates of grazing to all who have assisted in putting out fires is a good system but as worked it presents possibilities to the forest officer who draws up the statement showing those present who helped to extinguish any particular fire. It is suggested that the village patel should also sign such statements.

"The area of forest in the Murgod mahál north of the Kaladgi road which had been relinquished by the Forest Department was again handed back to that Department for management during the year. Government have also now sanctioned the return of all the forest lands remaining in this mahál and Parasgad taluka to the Forest Department.

"Mr. Hodgson's time was much taken up in the past year in providing wood for military requirements. He consequently was not able to devote much time to the revenue work of the forest mahals. Little progress was made in the giving out of suitable cultivable land in kumri villages in exchange for the temporary kumri rights.

"Mr. Hodgson has done excellent work during his tenure of the office of Divisional Forest Officer, Belgaum, in the development of communication roads to the forests and has shown the greatest enthusiasm in all branches of his work. It is to be hoped that the progress in improving the existing roads in the forest villages of Khánápur will continue and that new roads will be provided where the exploitation of the forests is hindered by the lack of proper communications."

Dhárwár and Bijápur—Remarks of the Collector of Dhárwár (Mr. E. G. Turner):—

"The report appears satisfactory though it is impossible to compare the financial results for this district owing to this being the first completed year since the changes in the Dhárwár forest division were made. The undersigned can endorse Mr. Koppikar's remarks as to the need for placing many of the pasture lands under the Forest authorities' control, and an agreement with Mr. Koppikar as to which lands should be so transferred has at last been settled and the final recommendation will shortly be made. Mr. Koppikar is very keen on a straight demarcation line so as to make conservancy easier and give less grounds to villagers for trespassing. From the several proposals put forward by him it does not appear that great importance was attached to this theory at the time of the forest settlement. However what progress can be made in this direction by exchange of lands is being considered."

Remarks of the Collector of Bijápur (Mr. V. K. Namjoshi):—

"It is satisfactory that the forest revenue of the district rose to Rs. 41,750 during the year from Rs. 33,726 during the preceding year, the revenue from minor produce alone being Rs. 31,060. The advantage of having a forest in their neighbourhood must have been specially brought home to the many people whose houses were destroyed by the floods of November last and who got free grants of timber from the forest for rebuilding them.

"It is satisfactory to note the decline in the number of forest fires during the year; but this was due of course to the special seasonal conditions of the year.

"The total number of impoundings in Badámi and Bágalkot were 3,275, sheep and goats being the principal offenders. Out of the total number of 1,10,069 animals admitted to grazing in forests during the year, the number of sheep and goats was only 1,117. This seems to indicate that facilities for grazing in the case of these animals require improvement. As this matter is the subject of a separate correspondence, it is unnecessary to say more about it here.

"It was unfortunate that a large number of seedlings grown with some trouble should have died from neglect on the part of the subordinate staff. A large number of houses is being built and factories are multiplying. The demand for timber and fuel is on the increase. The development of tree-growth to meet this increasing demand is absolutely necessary.

"The Acting Collector endorses Mr. Turner's remarks about straight demarcation. The various proposals submitted by Mr. Koppikar in this respect were judicious and his treatment of the ryot has been sympathetic."

Sind Circle.

When referring to a question asked by Government as to whether rails from light railways now laid down in France and Mesopotamia and likely to be available after the war would be wanted for the exploitation of forest produce in the Sind Circle, it was pointed out that what are needed so badly by the Sind Forest Department are tugs and barges to hire to contractors who have no boats of their own for the water carriage of their forest produce. At present country boats are very expensive to hire, and the boatmen most unreliable. This gives a great advantage to the bigger contractors who possess boats, and tends to keep contracts in the hands of a few, which is bad both for the State and the public. This want of facility of transport is one of the chief reasons why there are so few contractors in the Hyderabad and Jerruck divisions.

Another urgent need is a steamer for the Sind Forest Circle Officer. It is imperative that a large percentage of erosion fellings and kachas must be inspected, a fact brought home only too clearly this year by the bad administration found in the Hyderabad division, where the rules regarding erosion fellings have not been stringently observed. As the forests of Sind lie on the river bank and are about four miles broad, inspection by steamer, as in the early days of the administration when under Sir William Schlich, Divisional Forest Officers held free passes to travel on the steamers of the Indus River Flotilla Company, is a common sense procedure.

Reference must be made to high prices prevailing for wood all over the province. The principal cause was of course the large export of fuel to Mesopotamia from Lower Sind and to Quetta and the neighbourhood from Upper Sind. In Karáchi the situation was further aggravated by the combination of the three principal contractors (who at present practically control the market) owing to one firm being unable to put six lakhs maunds of dry fuel on the market at one time. The shortage of waggons on the railway, resulting in none being available for the local fuel supply, and the disinclination of the aforesaid contractors to put any of their dry stocks wholesale on the market when a few waggons were available owing to the appearance of a well-to-do new comer in the fuel market, led to a great depletion of dry stocks in Karáchi itself, and a general inflation of prices.

Personal appeal to the loyalty of contractors, and refusal to accept tenders from combinations combined with the putting of all available dead-wood on the market, has brought down the price of the military contract from 15½ annas to 9 annas per 100 lbs. and the local supply from Rs. 1-4-0 to 14 annas per maund and will, it is hoped, decrease the latter much more appreciably in the near future. In the meantime it is necessary to encourage the smaller contractor in every possible way as indicated above.

The position in Upper Sind must be ameliorated by the acquisition of more forest land which is in great deficit due to a mistaken policy in the past, and the Commissioner has been addressed on the subject during the year under report.

It was held by the Judicial Commissioner of Sind in a case during the previous year that rule 4 of the old Sind rules under section 41, Indian Forest Act, was illegal. This necessitated new rules being drawn up, and these were prepared, submitted to and sanctioned by Government and introduced during the year under report.

Felling rules were standardized and introduced into the agreements as is done in the Presidency proper. Leaving these to the discretion of the Divisional Forest Officers had proved most disastrous in the Hyderabad division.

At the request of the Timber Supply Officer, Bombay, statistics as to the timber available in the markets of Sind were obtained and forwarded early in 1917.

Arrangements were made to give instruction in arboriculture to subordinates of the Public Works Department, District Local Boards and Municipalities at Ráhuja in Sukkur and in Hyderabad. At Ráhuja all these candidates passed, while at Miáni the six candidates who sat for the final examination were successful, one of the students being absent through illness. The Commissioner has sanctioned one class being held for the province to be opened yearly at Hyderabad. The Forest Department was represented by a stall at the Arts and Crafts Exhibition opened by the Commissioner in Hyderabad in November 1916, where amongst other exhibits specimens of bobbins turned from the wood of bahan (*Populus euphratica*) were shown.

Chil and deodar logs and sleepers and logs of tali (*Dalbergia sisoo*) were as usual imported into Sukkur, Rohri and Shikárpur from the various parts of the Punjáb, and large quantities of timber and fuel to the large towns of Upper Sind from the territories of His Highness the Mir of Khairpur. . .

There were no civil suits during the year.

Mr. Rieu in forwarding the Hyderabad report remarks: "It is satisfactory to note that in the Unerpur range of the Karáchi district there was only one case of accidental fire in which the area damaged was insignificant."

In paragraph 101 of the Jerruck report the Divisional Forest Officer, Jerruck, writes: "The price of fuel remains at a very high level in Karáchi at the close of the year owing mainly to the greed of certain leading contractors, though ostensibly to shortage of railway transport and requirements of army in Mesopotamia."

The Collector of Karáchi in forwarding the Jerruck report comments as follows: "The Collector notices with satisfaction the result of the year's good inundation and rainfall reflected in the reduction of forest offences and cattle impoundings, and the success attained by the departmental measures in keeping the forests safe from fires.

The Collector does not accept as accurate the statement made in paragraph 101 of the report as to the principal cause of the high price of fuel in Karáchi. The price would never have risen as it did but for what are there represented as the merely ostensible reasons for the rise. The latter were therefore the main and direct causes. The dealers, as it subsequently turned out, had somewhat overestimated the extent of the shortage in the supply, not having anticipated that the restriction on the use of railway wagons for private consignments would be relaxed. As soon as this was realized, prices eased off somewhat, and the present rates probably fairly represent the existing relation between supply and demand."

The Deputy Commissioner, Upper Sind Frontier, in forwarding the Sukkur report remarks as follows: "Only one pending case belongs to this district.

There were only two forest cases before the courts, and in neither was there any complaint about the attendance of the subordinate officers of the department. There does not appear to be anything else in the report that invites comment. The creation of the new division should be an advantage to both the Forest and Revenue Departments."

REMARKS OF THE COMMISSIONER, NORTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE NORTHERN CIRCLE FOR THE YEAR 1916-17.

No. F.O.R.—47.

REVENUE DEPARTMENT.

Camp, Poona, 18th October 1917.

Submitted to Government.

2. The Commissioner has no special comment to make on the report.

H. SMITH,
For Commissioner, N. D.

REMARKS OF THE COMMISSIONER, CENTRAL DIVISION, ON THE FOREST ADMINISTRATION REPORTS OF THE NORTHERN AND CENTRAL CIRCLES FOR THE YEAR 1916-17 SO FAR AS THE AREAS IN THE CENTRAL DIVISION ARE CONCERNED.

No. A.—1436 of 1917.

Poona, 27th October 1917.

The following review of the administration reports of the Northern and Central forest circles for the year 1916-17, as far as the areas in the Central Division are concerned, is submitted to Government in the Revenue Department.

2. The forest ranges in the Násik district were rearranged in order to secure more efficient administration, the Igatpuri range being transferred to the Thána division and the remaining ranges in the Násik district being formed into new three sub-divisions. There was a net decrease of 36 square miles, 192 acres in the forest area in the Central Circle, mainly as a result of the disforestment of certain pasture areas which are now to be given out for cultivation in the Poona and Ahmednagar districts.

3. The length of new boundary demarcated during the year was only 97 miles—68 miles in the Akola range, 26 miles in West Khándesh and 3 miles in the Dindori and Peint ranges. The remaining work—124 miles in the Rájur range (Ahmednagar) and 63 miles in South Násik division—is expected to be finished shortly.

4. Preparation of new working plans and revision of existing ones were delayed owing to certain suggestions of the Inspector-General of Forests, who specially visited the Sátpuda forests and the teak and babul forests in Poona: the Inspector-General's recommendations are receiving the careful attention of the officers concerned.

5. Road works in North Khándesh—Hisala-Bhoiti road and Wasurdi-Kodil road—were pushed on; and proposals regarding the fresh alignment of the Akráni road which were discussed by the forest officers have already been submitted to Government.

The Commissioner sympathizes with Mr. Napier's remarks as to the need for inspection bungalows in North Khándesh where tents are uncomfortably warm in the hot weather.

6. As regards the proposed Dhadgaon dispensary, when the distribution of dispensary grants for the current year was discussed in a recent conference of the Divisional Commissioners and the Surgeon-General, the Commissioner did not press for this dispensary because:—

(1) No Sub-Assistant Surgeon is available.

(2) If one were sent he would always try to get away. He would have nothing to do and would himself get ill.

(3) The natives do not want a dispensary and would not use one, and Government servants could only be given quinine and cough mixture, and they can have that without a dispensary.

For these reasons the Commissioner does not think that the Dhadgaon claim is very strong. Indeed it appears doubtful if it would ever be advisable to have a dispensary at this place—at all events there are other places where dispensaries are more wanted and would be much more useful.

7. The accompanying statement shows the nature and number of the forest offences committed. Their number rose from 6,998 to 7,274, of which 229 were taken into Court, 6,174 were compounded and warnings were given, and 871 remained undetected. The largest increase in any single district was 248 in the Poona division, and the Commissioner ascribes it to pilfering of forest material for the erection of temporary huts by villagers of plague-infected areas. Communal punishment was inflicted by the Collectors of Poona and Kolába on 21 villages for persistent damage by illicit cutting and grazing.

Mr. Napier's suggestions for the better protection of State forests from loss by fire were submitted to Government with this office No. A.—1339, dated 8th September 1917.

	1915-16.	1916-17.
East Khándesh ...	11,560	11,289
West Khándesh ...	10,045	10,602
North Khándesh ...	8,082	6,027
Poona ...	11,562	10,136
Sátára ...	5,571	5,033
North Násik ...	16,537	11,419
South Násik ...	11,484	4,971
Násik Sub-division (newly formed) ...	...	8,539
	74,841	68,016

8. Statistics of impoundings in the several forest divisions are given in the margin. General improvement is noticeable in all divisions except West Khándesh. Mr. Napier remarks that the decrease in the impoundings of horned cattle from closed areas was due to there being abundance of grass and to efficient supervision.

9. *Minor produce.*—Proceeds from hirda fell from Rs. 22,863 to Rs. 16,160; the decrease is an example of ordinary fluctuation.

10. The financial results of the year's administration are very satisfactory. The revenue of the forest divisions in the Central Circle within the jurisdiction of the Central Division amounted to Rs. 7,16,800 against Rs. 5,93,549, and the expenditure to Rs. 4,24,601 against Rs. 4,13,867, leaving a net surplus of Rs. 2,92,199 against Rs. 1,79,682. North and West Khándesh divisions mainly contributed to the increase which is due to brisk timber and fuel markets.

There was an increase of Rs. 27,928 in the total revenue in the Násik ranges. As Mr. Fisher remarks, owing to the reorganization of these charges it is not possible to compare each charge with the previous year's returns.

11. The demand for forest material tends to increase. Mr. Napier observes that the war demand for timber, fuel and grass has cleared off the accumulation of stocks in Khándesh. The Commissioner is glad to add that the year's working has as usual been very satisfactory, reflecting credit on all members of the department. Relations between Forest and Revenue Officers continued to be excellent.

C. N. SEDDON,
Commissioner, C. D.

Number of forest offences committed in the Central Division.

Divisions.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total, 1916-17.
	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	
East Khándesh ...	7	17	16	16	7	238	318	162	47	64	3	3	61	319	337	181	898
West Khándesh ...	9	5	5	1	1	199	395	32	55	75	3	...	65	279	403	33	780
North Khándesh ...	6	2	1	3	12	171	144	64	43	103	2	...	61	276	147	67	551
Poona	4	25	26	8	33	767	878	194	83	128	6	1	120	920	910	203	2,153
Sátára	3	22	11	2	26	455	476	121	56	46	...	6	85	523	487	129	1,224
North Násik	1	8	3	1	1	180	334	46	6	14	...	1	8	202	337	48	595
South Násik	1	7	9	2	5	163	123	38	41	36	...	...	47	206	132	40	425
Násik Sub-division ...	...	3	5	...	1	301	278	11	13	36	...	...	14	340	283	11	648
Total ...	31	89	76	33	86	2,474	2,946	668	344	502	14	11	461	3,065	3,036	712	7,274

REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE FOR THE YEAR 1916-17.

No. 6111.

REVENUE DEPARTMENT.

Belgaum, 24th October 1917.

Alteration in area.—Parasgad forests (7 square miles) have been transferred to the Forest Department for management. Proposal for the transfer of pasture forests in Dhárwár (56 square miles) are under consideration.

Proposals for transfer of the Ratnágiri forests (18 square miles) to the Revenue Department have been submitted to Government under this office No. 429 of 6th August 1917.

2. *Forest settlement.*—As the forest settlement in all districts of the division is complete although in some cases effected some 30 years ago I was struck with the large number of proposals for afforestation of new survey numbers submitted from time to time by district officers and have issued orders that except where cogent reasons exist or where the forest settlement is out of date or where lands are required for in-forest cultivation, proposals for afforestation of numbers not included in the demarcation sanctioned at the time of forest settlement should not be submitted. Many cases in which lands have been provisionally notified under section 4 of the Forest Act are held up either for examination in the light of these tests or owing to the time of Prant Officers being taken up by more urgent work which prevents a careful examination of each proposal. This is especially necessary in Kánara where 82 per cent. of the district is already under forest and population has steadily decreased.

3. *Demarcation.*—The Conservator reports that the Collector of Dhárwár has issued orders requiring Inámdárs to clear the common boundaries between their lands and Government forests. Such an order does not appear to be legal (*vide* Government Order No. 10632 of 1st September 1917). I am pointing this out to the Conservator and the Collector.

4. *Control of regular working plans.*—Arrears in the exploitation of forests according to working plans are due to the difficulty in procuring labour and transport and these arrears will continue to accumulate until these difficulties are removed. To counteract the deficiency of labour in malarious and inaccessible parts where forest growth is good in-forest cultivation must be started and encouraged. This important question has engaged my attention and I have been considering on what lines the scheme should be worked and have lately held a conference of forest officers and which the Collector of Kánara attended. Roads are as necessary as labour. A detailed scheme for the improvement of communications of forest estate estimated to cost three lakhs of rupees has been submitted to Government under this office No. 5115 of 11th November 1916 and orders are awaited.

5. *Fire.*—The number of offences by fire has increased, being 35 per cent. above the average of the past three years and 16 per cent. above last year's figures, but the area burnt decreased from 2,13,959 acres to 52,794 acres, *i. e.*, by 75 per cent. which is satisfactory. Sixty-four villages were reported for bad fires in which I issued necessary orders inflicting penal rate of fees on the villagers by whose negligence or carelessness fires were caused and remitting altogether or ordering the levy of ordinary fees in the case of those who helped to put them out. It is essential that rewards and punishments should be closely associated if forest fires are to be checked.

6. *Grazing.*—Grazing rules are capable of improvement on the lines of the Central Provinces rules as stated elsewhere, and the question is already engaging my attention and I am in correspondence with the Conservator on the subject. The lack of grazing in Kánara is accentuated by the fact that a very large proportion of the cattle is unfit for labour. Unfit cattle are grazed at 2 annas which is the rate that useful cattle pay. In the Central Provinces

the ryot is allowed a certain number of plough and domestic cattle at the usual rates; any in excess of that number pay Re. 1.

7. *Financial.*—Forest revenue increased from 20 lakhs to 23·5 lakhs or 17·5 per cent. This is due to the increased area in the coupes sold.

8. *General.*—I attended the Conference of forest officers on 11th and 12th September 1916 and another Conference on 22nd October 1916. The Chief Secretary to Government and the Honourable Member in charge of the Revenue Department accompanied me in a brief tour over the forests of Kánara.

A rough estimate of the resources of the forest estate has been submitted to Government under this office No. 1546 of 11th April 1917. The estimated increase in revenue (gross or nett) will be 300 per cent. It would be an advantage if a special officer could be deputed for a scientific investigation of the latent resources of the forest estate.

My report on sandalwood is pending the receipt of certain information which I called for in July 1916 and which I now learn is to be yet put up before me.

Proposals for the establishment of a Forest College in Dhárwár are under consideration of Government.

The Gunji-Shiroli road referred to by the Conservator is useful not only for the exploitation of forest produce but also for the inhabitants of several villages. I have granted Rs. 2,000 for the construction of this road out of my discretionary grant for works of public utility.

I consider considerable profit can be obtained if charcoal is manufactured by drywood distillation instead of by the wasteful method of burning. This matter is under investigation, but it is difficult for the forest officers who have large charges to consider the commercial side of the forest estate, in addition to their duties of conservancy and exploitation of the forest coupes. A Forest Engineer is shortly to be appointed who will relieve the Divisional Forest Officers of the duty of constructing roads and buildings and other works which belong to the engineering side of forest work.

L. J. MOUNTFORD,
Commissioner, S. D.

REMARKS OF THE COMMISSIONER IN SIND ON THE FOREST ADMINISTRATION REPORT OF THE SIND CIRCLE FOR THE YEAR 1916-17.

No. 3238 of 1917.

REVENUE DEPARTMENT.

Office of the Commissioner in Sind
Government House, Karachi, 5th November 1917.

Submitted to Government.

2. The revenue of the year amounted to Rs. 5·3 lakhs against an average of Rs. 4·1 lakhs in the last five years; and the expenditure to Rs. 2·1 lakhs against an average of Rs. 2·1 lakhs. The surplus revenue as compared with the previous year rose from Rs. 1·6 lakhs to Rs. 3·2 lakhs.

3. Of the increase of a lakh and a half over the revenue of the year 1915-16, Rs. 50,000 is apparently due to the earlier recovery of outstanding instalments; for it is reported that the revenue outstanding was Rs. 24,900 only against Rs. 77,510 on the same date last year. This fact is not put forward in the causes given by the Deputy Conservator for the improvement of revenue.

4. The grazing revenue fell from Rs. 55,000 to Rs. 44,000; while minor produce rose from Rs. 31,000 to Rs. 43,000; the chief feature under the head of minor produce being the revival of the demand for lac, with an increase of revenue from Rs. 600 to Rs. 17,000.

5. The timber exploited rose by 76 per cent. from 2·1 lakhs of cubic feet to 3·7 lakhs; while the revenue thereof increased by 60 per cent. from Rs. 67,000 to Rs. 1,07,000. No explanation of this decrease in the price of timber is offered in the report.

6. The fuel exploited increased from 160 lakhs of cubic feet to 188 lakhs, or 17 per cent.; while the revenue increased from Rs. 2 lakhs to Rs. 3·1 lakhs, or 50 per cent.

There is reason to doubt whether these figures of outturn are accurate; and since they are most important to demonstrate the efficient working of the Department, every care should be taken to render them as accurate as possible.

7. The statement of disciplinary measures taken towards the establishment shows an improvement over last year, when the Commissioner had occasion to comment on the inadvisability of wholesale punishments by degradation or fine of superior officers. These punishments are still too numerous in the Sukkur division, where of officers classed as 'superior' 7 were degraded and 19 fined; but in other divisions it was found necessary to punish three men only by fine. The Deputy Conservator will no doubt take steps to see that the recent unsatisfactory system does not continue to be followed in the Sukkur division.

8. Favourable rains, and a higher inundation protected the forests equally from fires and illicit grazings, but the number of unauthorised fellings rose slightly; this result being, in the opinion of the Deputy Conservator, a sign of more vigilant inspection. The number of cattle impounded fell from 18,000 to 15,000.

9. An improvement in supervision and control is expected from the re-distribution of the Sukkur and Lárkána divisions into three charges, which was sanctioned by Government with effect from the 1st of August 1917. Proposals for the improvement of the administrative staff are before Government.

10. The chief feature of the year was the very heavy demand of the Military Department for the supply of fuel to Mesopotamia, the export during the year having amounted to 88 lakhs of cubic feet. The accumulated stocks of dry fuel were largely depleted, and in consequence the price rose very high. In Karáchi the situation was rendered more acute by the shortage of railway wagons for the conveyance of fuel, and prices, which ordinarily ruled at 10 annas per maund, for a time exceeded a rupee. So also in Hyderabad prices rose from 8 annas to 12 annas. The public were considerably inconvenienced by the shortage and high prices. Attempts have been made to bring more fuel into the market by throwing open additional coupes for exploitation, but the continuance of the heavy demand for Mesopotamia maintains the stringency of the market.

11. The Deputy Conservator suggests that the area of forests in Sind is insufficient. It amounts to 7,00,000 acres as compared with an annually cultivated area of 43,00,000 acres and a population of 35 lakhs. The Commissioner agrees that the reservation of additional forest area is desirable, but the difficulty is to find land available for irrigation. If the Deputy Conservator can secure the means of irrigation for waste lands, his proposals for reservation of forests will receive very careful consideration.

12. The need of steamers and barges for the conveyance of fuel suggested by the Deputy Conservator will be considered in consultation with the Inspector-General of Forests at the time of his approaching visit to Sind.

H. S. LAWRENCE,
Commissioner in Sind.

APPENDICES.

FORM No. 7.—*Area of Reserved Forest, 1916-1917.*

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
NORTHERN CIRCLE.				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq. m. a.		
Panch Mahals ...	.....	Panch Mahals.	Reserved ...	212,199	331 359	...	(b) 47	212,152	331 312	(b) 4363 1-5-1909, (b) 7349 25-7-1917.	
Surat ...	.....	Surat ..	Do. ...	51,791	80 591	...	...	51,791	80 591	.....	
Dángs (leased) ...	.....	Dángs ...	Do. ...	211,795	330 595	...	...	211,795	330 595	.....	
North Thána ...	.....	Thána ...	Do. ...	214,149	334 389	(a) 5	(b) 5,948	208,206	325 206	(a) 4878 9-5-1916, (b) 7096 18-7-1916, 11786 30-11-1916.	
West Thána ...	.....	Do. ...	Do. ...	236,335	369 175	113,069	151,612	197,792	309 32	(b) 11786 30-11-1916.	
East Thána ...	.....	Do. ...	Do. ...	212,601	332 211	194,928	(b) 113,069	294,530	460 130	(b) 9754 10-10-1916, (b) 11786 30-11-1916.	
South Násik ...	.....	Násik ...	Do. ...	402,956	629 396	(a) 15,995	(b) 197,390	221,561	346 121	(a) 7949 17-8-1916, 1457 6-2-1917, 8634 2-9-1916, (a) 10804 10-11-1916, (b) 6354-A 26-6-1916, 11646 28-11-1916.	
North Násik ...	.....	Do. ...	Do. ...	378,362	591 122	108,267	(b) 154,624	332,005	518 485	(b) 11267 21-11-1916, 4808 11-4-1917, 3329 17-3-1917, 11646 28-11-1916.	
Násik Sub-Division.	.....	Do. ...	Do. ...	...	...	189,587	(b) 5	189,582	296 192	(b) 3700 24-3-1917, 11646 28-11-1916.	
Ahmedabad ...	.....	Ahmedabad	Do. ...	12,032	18 512	...	...	12,032	18 512	.....	
			Total, Northern Circle.	1,932,310	3,019 150	621,851	622,715	1,931,446	3,017 566		
CENTRAL CIRCLE.											
East Khándesh ...	.....	East Khándesh.	Reserved ...	511,870	799 510	14	...	511,884	799 524	8410 of 29-8-1916.	
West Khándesh ...	.....	West Khándesh.	Do. ...	494,627	772 547	251	...	494,878	773 158	8850 of 12-9-1916.	
North Khándesh...	.....	North Khándesh	Do. ...	555,766	868 246	430	...	556,196	869 36	296 of 9-1-1917.	
Poona and Ahmednagar.	.....	Poona and Ahmednagar.	Do. ...	646,521	1,010 121	§ 486	¶ 380	646,627	1,010 227	§ 6757 8-7-1916, 6847 11-7-1916, 1959 19-2-1917, 1960 19-2-1917, 26279 23-6-1916, 6299 23-6-1916, ¶ 8949 15-9-1916, 8635 5-7-1916, 12796 29-12-1916, 6849 11-7-1916, 11266 21-11-1916, 2758 & 59 6-3-1912, 4542 12-4-1917, 8849 22-9-1916, 5206 19-5-1916, 1990 19-2-1917, 1069 29-1-1917, 2777 27-3-1917, 7950(a) & 7983 15-8-1916. 6850 11-7-1916, 11649 25-11-1916, 204 (a) 8-1-1917, 8198 (a) 22-8-1916, 8200 22-8-1916, 1163 30-1-1917, 4807 17-4-1917, 11269 21-11-1916, 9517 3-10-1916.	

FORM No. 7.—*Area of Reserved Forest, 1916-1917*—continued.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
CENTRAL CIRCLE—*contd.*				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Sátára ...	... ..	Sátára ...	Reserved ...	454,440	710 40	...	...	454,440	710 40	.....	
.....	.....	Do. ...	Leased ...	232	0 232	...	...	232	0 232	.....	
Kolába ...	.....	Kolába ...	Reserved ...	287,903	449 543	...	...	287,903	449 543	.....	
Ahmednagar and Sholápur.	.....	Ahmednagar and Sholápur.	Do. ...	473,068	739 108	...	*24,027	449,041	701 401	*7750 of 8-8-1916 6159 1604 16-5-1917, 10-2-1917, 297 1450 9-1-1917, 6-2-1917, 7947 300 15-3-1916, 9-1-1917, 3743 6633 26-3-1917, 5-9-1916. 9481—A. B C. 2-10-1916.	
			Total, Central Circle.	3,424,427	5,350 427	1,181	24,407	3,401,201	5,314 241		
SOUTHERN CIRCLE.											
Kánara, N. D. ...	.....	Kánara and Dhárwár.	Reserved ...	271,073	423 353	(a) 1,229 †495	(b) 12	272,785	426 145	(a) 5077 and 5081 15-5-1916. 5207 7355 19-5-1916, 25-7-1916, 7516 8923 31-7-1916, 15-9-1916, 2458 3059 28-2-1917, 12-3-1917. (b) 11981 5-12-1916.	
Kánara, E. D. ...	.....	Do. ...	Do. ...	409,068	639 108	(c) 183	(d) 1 † 2 (e) 33,077 (f) 333.	375,843	587 163	(e) 5076 and 5080 15-5-1916. 7107 10894 18-7-1916, 13-11-1916, 12578 & 1146 21-12-1916, 30-1-1917. (d) 8848 6160 12-9-1916, 16-5-1917,	† Mistake in area now rectified. (e) Area transferred from Kánara, E. D. to Kánara, C. D., (G. O. No. 11396 27-10-15.) (f) Area transferred from Kánara, E. D. to Kánara W. D. (G. O. No. 11395 27-10-15.
Kánara, C. D. ...	.....	Kánara ...	Do. ...	467,831	731 21	(g) 11 (e) 33,077	(h) 17	500,932	782 452	(g) 8033 13-6-1916. (h) 5501 5727,5723,5729 29-5-1916, 7-6-1916, 5932 6207 13-6-1916, 21-6-1916, 9128 9518 21-9-1916, 3-10-1916, 10142 509 23-10-1916, 16-1-1917. 4809 17-4-1917.	
Kánara, S. D. ...	.....	Do. ...	Do. ...	411,044	642 164	(i) 9	(j) 33	411,020	642 140	(i) 8443 29-8-1916, (j) 5658 7074 2-6-1916, 18-7-1916, 8444 11172 29-8-1916, 18-11-1916, 11263 12157 21-11-1916, 11-12-1916, & 5746 8-5-1917.	

FORM No. 7.—*Area of Reserved Forest, 1916-1917*—concluded.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
SOUTHERN CIRCLE—*contd.*				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Kánara, W. D.		Kánara	Reserved	527,595	824 235	(*k*) 40 (*f*) 333	(*l*) 2 *6,596	521,370	814 410	(*k*) 10800 & 10802 10-11-1916, (*l*) 9427 30-9-16, 8848 12-9-1916.	*Mistake in area now rectified. (*e*) Area transferred from Kánara, E. D., to Kánara, C. D., (G. O. No. 11306 27-10-15) (*f*) Area transferred from Kánara, E. D. to Kánara, W. D., (G. O. No. 11305 27-10-15)
Belgaum		Belgaum	Do.	435,319	680 119	(*m*) 1,156	...	436,475	681 635	(*m*) 8199 22-8-1916, 10803 & 10805 10-11-1916, 11265 21-11-1916, 299 9-1-1917, & 4220 4-4-1917.	
Dhárwár and Bijápur.		Dhárwár and Bijápur.	Do.	318,054	496 614	(*n*) 80	(*o*) 69 *661	317,354	495 554	(*n*) 5068 16-6-1916, 7505 & 7517 31-7-1916, (*o*) 5931 & 5934 18-6-1916, 6846 10-7-1916,	
Ratnágiri		Ratnágiri	Do.	12,054	18 534	...	...	12,054	18 534		
			Total, Southern Circle.	2,852,068	4,456 229	3,158 33,410†	7,393 33,410†	2,847,833	4,449 473		†Areas transferred from Division to Division.
SIND CIRCLE.											
Sukkur		Sukkur	‡ Old Gublo	14,464	22 384	...	...	14,464	22 384		‡This forest is transferred from the Upper Sind Frontier District to Sukkur District.
			Other Forests	234,337	366 97	+3,745	−1,306	236,776	369 616		+Gained by action of the river.
		Upper Sind Frontier.	Forests	41,929	65 329	+494	−230	42,193	65 593		−Lost by action of the river.
			Total	290,730	454 170	4,239	1,536	293,433	458 313		
Lárkána		Sukkur	Forests	32,426	50 426	...	...	32,426	50 426		
		Lárkána	Kasimshah	2,063	3 143	§¶3	...	2,066	3 146	Government Resolution No. 8173 of 22nd August 1916.	§Reservation. ¶The area notified is 2—13 acres and the area according to village form of the whole forest is 2,063—17; hence 3 acres have been accounted for.
			Other Forests	59,992	93 472	+940	−380	60,552	94 392		+Gained by action of the river.
		Nawábshah.	Forests	53,794	84 34	+240	−1,150	52,884	82 414		−Lost by action of the river.
			Total	148,275	231 435	1,193	1,530	147,938	231 93		
Hyderabad		Hyderabad.	Khanote No. I.	1,009	1 369	**88	...	1,097	1 457	Government Resolution No. 12320 of 19th December 1916.	**Reservation.
			Jhirki	1,065	1 425	**9	...	1,074	1 434	Government Resolution No. 9240 of 25th September 1916.	Do.
			Khanote	6,104	9 344	**52	...	6,156	9 396	Government Resolution No. 1250 of 19th December 1916.	Do.
			Other Forests	68,458	106 618	+9,015	−1,473	76,000	118 480		
		Karáchi	Manjhand	5,373	8 253	††329 +20	−100	5,622	8 502	Government Resolution No. 3050 of 12th March 1917.	††Reservation.
			Other Forests	23,855	37 175	+2,452	−718	25,589	39 629		+Gained by action of the river.
		Nawábshah.	Forests	50,612	79 52	+575	−1,690	49,497	77 217		−Lost by action of the river.
			Total	156,476	244 316	12,540	3,981	165,035	257 555		
Jerruck		Hyderabad.	Forests	18,360	28 440	+222	−209	18,373	28 453		
		Karáchi	Do.	128,060	200 60	+2,719	−4,610	126,169	197 89		+Gained by action of the river.
			Total	146,420	228 500	2,941	4,819	144,542	225 542		−Lost by action of the river.
			Total, Sind Circle.	744,901	1,159 141	20,913	11,866	750,948	1,173 228		
			GRAND TOTAL	3,953,706	13,985 306	680,504	699,991	3,934,428	13,955 228		

FORM No. 7-A.—*Area of Protected Forest, 1916-1917.*

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
NORTHERN CIRCLE.				Acres.	Sq. m. a.	Acres.	Acres.	Acres.	Sq. m. a.		
Surat (Dángs leased).	.....	Surat ...	Protected ...	208,013	325 13	...	...	208,013	325 13	.....	
North Thána ...	.....	Thána ...	Do. ...	93,472	146 32	...	(*b*) 567	92,905	145 105	(*b*) 743 20-1-1917, (*b*) 6272 19-5-1917, 11786 30-11-1916.	
West Thána ...	.....	Do. ...	Do. ...	64,901	101 261	47,818	(*b*) 44,994	67,725	105 525	(*b*) 10564 3-11-1916, (*b*) 6161 16-5-1917, 11786 30-11-1916.	
East Thána ...	.....	Do. ...	Do. ...	98,072	153 152	40,532	47,818	90,786	141 546	11786 30-11-1916.	
South Násik ...	.....	Násik ...	Do. ...	56,144	87 464	(*a*) 5,040	...	61,184	95 384	(*a*) 631 17-1-1917, (*a*) 11786 30-11-1916.	
			Total, Northern Circle.	520,602	813 282	93,300	93,379	520,613	813 283		
CENTRAL CIRCLE.											
Sátára	.....	Sátára ...	Protected	658	1 18	...	...	658	1 18	.....	
Poona	.....	Ahmednagar.	Do. ...	7,139	11 99	...	...	7,139	11 99	.....	
Kolába	.....	Kolába ...	Do. ...	47,247	73 527	...	6	47,241	73 521	7751 8-8-1916, 8633 5-9-1916, 8544 2-9-1916, 12617 22-12-1916, 6281 23-6-1916.	
			Total, Central Circle.	55,044	86 44	...	6	55,038	85 638		
SOUTHERN CIRCLE.											
Kánara, N. D. ...	.....	Kánara and Dhárwár.	Protected Forest.	57	0 57	*1	...	58	0 58	.....	* Mistakes in areas rectified.
Kánara, E. D. ...	.....	Do. ...	Do. ...	3,284	5 84	*2 (*a*) 2	(*b*) 1,579	1,709	2 429	(*a*) 7073 18-7-1916.	(*b*) Area transferred from Kánara, E. D. to Kánara, C. D., (G. O. No. 11396 27-10-15.)
Kánara, C. D. ...	.....	Kánara ...	Do. ...	30,985	48 265	(*b*) 1,579	(*c*) 7/40	32,564	50 564	(*c*) 9727 10-10-1916.	
Kánara, S. D. ...	.....	Do. ...	Do. ...	42,035	65 435	...	(*d*) 1/40	42,035	65 435	(*d*) 7038 14-8-1916.	
Kánara, W. D. ...	.....	Do. ...	Do. ...	8,210	12 530	*818	...	9,028	14 68	.....	
Belgaum	.....	Belgaum ...	Do. ...	12	0 12	...	...	12	0 12	.....	
			Total, Southern Circle.	84,583	132 103	823 (*b*) 1,579	(*b*) 1,579	85,406	133 286		
SIND CIRCLE.											
Sukkur	.....	Upper Sind Frontier.	Dickenson ...	585	0 585	...	585	585	0 585		
			Total, Sind Circle.	585	0 585	...	...	585	0 585		
			GRAND TOTAL...	660,814	1,012 334	95,792	94,964	661,642	1,033 522		

FORM No. 7-B.—*Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1916-1917.*

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.	
Panch Mahals ...	.....	Panch Mahals.	Reserved ...	212,199	331 359	...	(*b*) 47	212,152	331 312	*Vide* Form No. 7.
Surat ...	.....	Surat ...	Reserved and Protected.	463,507	724 147	...	...	463,507	724 147	.....
North Thána ...	.....	Thána ...	Reserved ...	214,149	334 389	(*a*) 5	(*b*) 5,943	208,206	325 206	*Vide* Form No. 7.
West Thána ...	.....	Do. ..	Reserved and Protected.	238,886	373 166	118,700	151,612	205,974	321 534	.....
East Thána ..	.....	Do. ...	Reserved ..	218,333	341 93	194,928	118,731	294,530	460 130	*Vide* Form No. 7.
South Násik ...	.....	Násik ...	Do. ...	394,224	615 624	15,995	192,359	217,860	340 260	Do.
North Násik ...	.....	Do.	Do. ...	342,745	535 345	107,049	133,580	316,214	494 54	Do.
Násik Sub-Division.	.....	Do. ...	Do. ...	... ..	...	165,138	5	165,133	258 13	Do.
			Total, Northern Circle.	2,084,043	3,256 203	601,815	602,282	2,083,576	3,255 376	
CENTRAL CIRCLE.										
East Khándesh...	.....	East Khándesh.	Reserved ...	488,615	763 295	14	...	488,629	763 309	.....
West Khándesh.	.....	West Khándesh.	Do. ...	381,360	595 560	251	...	381,611	596 171	.....
North Khándesh.	.....	North Khándesh.	Do. ...	555,766	868 246	430	...	556,196	869 36	.....
Poona ...	.....	Poona and Ahmednagar.	Reserved and Protected.	366,397	573 177	486	*5,579	361,804	565 204	* Out of this 5,400 acres transferred to the R. D., *vide* G. R. No. 3913, dated 20th April 1911.
Sátára ..	.....	Sátára ...	Do. ...	330,490	516 250	...	...	330,490	516 250	.....
Kolába ...	.....	Kolába ...	Do. ...	269,327	420 527	...	...	269,327	420 527	.....
SOUTHERN CIRCLE.			Total, Central Circle.	2,392,455	3,738 135	1,181	5,579	2,388,057	3,731 217	
Kánara, N. D....	.....	Kánara and Dhárwár.	Reserved and Protected.	271,130	423 410	1,725	12	272,843	426 203	.....
Kánara, E. D....	.....	Do. ...	Do. ...	410,023	640 423	192	3 (*a*)34,656 (*b*) 333	375,223	586 183	* Transfers of areas from division to division as per G. O., R. D., No. 11306 of 27th October 1915 :— (*a*) from Kánara, E. D. to Kánara, C. D., *vide* forms Nos. 7 and 7A. : (*b*) from Kánara, E. D. to Kánara, W. D., *vide* forms 7 and 7A.
Kánara, C. D.	.....	Kánara ...	Do. ...	498,846	779 286	11 34,656	17	533,496	833 376	
Kánara, S. D. ...	.....	Do. ...	Do. ...	453,079	707 599	9	33	453,055	707 575	
Kánara, W. D....	.....	Do. ...	Do. ...	535,805	837 125	858 (*b*) 333	6,598	530,398	828 478	
Belgaum ...	.....	Belgaum ...	Do. ...	401,369	627 89	1,156 (*c*) 4,613	...	407,138	636 98	(*c*) Area transferred from the Revenue Department to that of the Forest Department as per Collector's No. F. O. R. 35 of 17th October 1916.
Dhárwár and Bijápur.	.....	Dhárwár and Bijápur.	Reserved ...	186,412	291 172	30	730	185,712	290 112	
Ratnágiri ...	.....	Ratnágiri ...	Do. ...	12,054	18 534	...	...	12,054	18 534	
			Total, Southern Circle.	2,768,718	4,326 78	{ 8,594 34,989* }	{ 7,393 *34,989 }	2,769,919	4,327 639	
SIND CIRCLE.										
Sukkur ...	.....	Sukkur and Upper Sind Frontier.	Forests ...	291,315	455 115	*41,239	*1,536	294,018	459 258	* *Vide* Form No. 7.
Lárkána ...	.....	Sukkur, Lárkána and Nawábshah.	Do. ...	148,275	231 435	*1,193	*1,530	147,938	231 98	.....
Hyderabad ...	.....	Hyderabad, Karáchi and Nawábshah.	Do. ...	156,476	244 316	*12,540	*3,981	165,035	257 555	.....
Jerruck ...	.....	Hyderabad and Karáchi.	Do. ...	146,396	228 476	*2,941	*4,819	144,518	225 518	.....
			Total, Sind Circle.	742,462	1,160 62	20,913	11,866	751,509	1,174 149	
			GRAND TOTAL...	7,987,678	12,480 478	667,492	662,109	7,993,061	12,489 101	

FORM No. 7-C.—*Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department for 1916-1917.*

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1916.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1917.		No. and date of Notification of addition or transfer.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.				Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.	
Surat ...	.....	Surat ...	Reserved ...	8,092	12 412	...	...	8,092	12 412	.....
North Thána ...	.....	Thána ...	Protected ..	93,472	146 32	...	567	92,905	145 105	*Vide* Form No. 7A.
West Thána ...	.....	Do. ...	Do. ...	62,350	97 270	42,187	44,994	59,543	93 23	Do.
East Thána ...	.....	Do. ...	Do. ...	92,430	144 270	40,532	42,176	90,786	141 546	.....
South Násik ...	.....	Násik ...	Reserved and Protected.	64,876	101 236	5,040	5,031	64,885	101 245	*Vide* Form No. 7A.
North Násik ...	.....	Do. ...	Reserved ...	35,617	55 417	1,218	21,044	15,791	24 431	Do.
Násik Sub-division.	.....	Do. ...	Do.	.....	...	24,449	...	24,449	38 129	.....
Ahmedabad ...	.....	Ahmedabad.	Do. ...	12,032	18 512	...	...	12,032	18 512	.....
			Total, Northern Circle.	368,869	576 229	113,426	113,812	368,483	575 483	
CENTRAL CIRCLE.										
East Khándesh ...	.....	East Khándesh.	Reserved ...	23,255	36 215	...	...	23,255	36 215	.....
West Khándesh ...	.....	West Khándesh.	Do. ...	113,267	176 627	...	...	113,267	176 627	.....
Poona ...	.....	Poona and Ahmednagar	Do. ...	286,763	448 43	5,400	201	291,962	456 122	.....
Sátára ...	.....	Sátára ...	Do. ...	124,840	195 40	...	...	124,840	195 40	.....
Kolába ...	.....	Kolába ...	Reserved and Protected.	65,823	102 543	...	6	65,817	102 537	.....
Ahmednagar and Sholápur.	.....	Ahmednagar and Sholápur.	Reserved ...	473,068	739 108	...	24,027	449,041	701 401	.....
			Total, Central Circle.	1,087,016	1,698 296	5,400	24,234	1,068,182	1,669 22	
SOUTHERN CIRCLE.										
Kánara, E. D. ...	.....	Kánara and Dhárwár.	Reserved Forest.	2,329	3 409	...	...	2,329	3 409	.....
Belgaum ...	.....	Belgaum ...	Do. ...	33,962	53 42	...	*4,613	29,349	45 549	†Transferred to the management of the Forest Department as per Collector's No. F. O. R. 37 of 17th October 1916.
Dhárwár and Bijápur.	.....	Dhárwár and Bijápur.	Do. ...	131,642	205 442	...	..	131,642	205 442	.....
			Total, Southern Circle.	167,933	262 253	...	*4,613	163,320	255 120	
SIND CIRCLE.										
Jerruck ...	.....	Karáchi ...	Malir ...	24	0 24	...	...	24	0 24	.....
			Total, Sind Circle.	24	0 24	...	...	24	0 24	
			GRAND TOTAL	1,623, 42	2,539 162	113,826	142,659	1,600,009	2,500 9	

ABSTRACT OF FORMS Nos. 7, 7-A, 7-B and 7-C.

ABSTRACT OF FORMS NOS. 7, 7-A,

Division.	In charge of the Forest Department.				
	Reserved Forest.			Protected Forest.	
	Forest proper.	Pasture reserves.	Fuel and Fodder reserves.	Forest proper.	Pasture reserves.
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.
Panch Mahâls ...	331 312	.....	...	...	.....
Surat ...	399 134	.....	...	325 13	.....
North Thâna ...	323 156	.....	2 50	...	.....
West Thâna ...	309 32	.....	...	12 512	.....
East Thâna ...	459 497	.....	...	...	.....
South Násik ...	339 270	.....	0 630	...	.....
North Násik ...	494 54	.....	...	...	.....
Násik Sub-Division ...	258 13	.....	...	...	.....
Ahmedabad ...	.....	.....	...	...	.....
Total ...	2,914 188	.....	3 40	337 525	.....
CENTRAL CIRCLE.					
East Khándesh ...	763 309	.....	...	...	.....
West Khándesh ...	465 144	.....	131 27	...	.....
North Khándesh ...	869 36	.....	...	...	.....
Poona ...	554 105	.....	...	11 99	.....
Sátára ...	515 232	.....	...	1 18	.....
Kolába ...	417 78	.....	3 449	...	.....
Ahmednagar and Sholápur ...	.....	.....	...	...	.....
Total ...	3,584 264	.....	134 476	12 117	.....
SOUTHERN CIRCLE.					
Kánara, Northern ...	424 186	1 576	0 23	...	0 58
Kánara, Eastern ...	476 431	106 603	...	...	2 429
Kánara, Central ...	682 491	99 601	...	50 564	.....
Kánara, Southern ...	385 490	256 290	...	65 435	.....
Kánara, Western ...	753 215	61 195	...	...	14 68
Belgaum ...	629 86	7 0	...	0 12	.....
Dhárwár-Bijápur ...	265 452	12 326	11 614	...	.....
Ratnágiri ...	13 534	.....	5 0	...	.....
Total ...	3,631 325	546 31	16 637	116 371	16 555
SIND CIRCLE.					
Sukkur ...	458 313	.....	...	0 585	.....
Lárkána ...	231 98	.....	...	...	.....
Hyderabad ...	257 555	.....	...	...	.....
Jerruck ...	225 518	.....	...	...	.....
Total ...	1,173 204	.....	...	0 585	.....
GRAND TOTAL ...	11,303 341	546 31	154 513	467 318	16 555

7-B *and* 7-C *for 1916-17.*

In charge of the Revenue Department.				Total Forest Area.	Remarks.
Reserved Forest.			Protected Forest.		
Forest proper.	Pasture reserves.	Fuel and Fodder reserves.	Pasture reserves.		
Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
...	.....	...	...	331 312	
...	3 53	9 359	...	736 559	
...	.....	...	145 105	470 311	
...	.....	...	93 13	414 557	
0 273	.....	...	141 546	602 36	
...	4 212	1 289	95 384	441 505	
...	24 431	...	...	518 485	
...	38 129	...	...	296 142	
...	.....	18 512	...	18 512	
0 273	70 185	29 520	475 408	3,831 219	
...	36 215	...	...	799 524	
...	176 627	...	...	773 158	
...	.....	...	...	869 36	
...	456 122	...	...	1,021 326	
...	189 385	5 295	...	711 290	
...	29 16	...	73 521	523 424	
...	701 401	...	...	701 401	
...	1,589 486	5 295	73 521	5,400 239	
...	.....	...	...	426 203	
...	3 409	...	...	589 592	
...	.....	...	...	833 376	
...	.....	...	...	707 575	
...	.....	...	...	828 478	
1 0	42 549	2 0	...	682 7	
...	205 422	...	...	495 554	
...	.....	...	...	18 534	
1 0	252 120	2 0	...	4,583 119	
...	.....	...	...	459 258	
...	.....	...	...	231 98	
...	.....	...	...	257 555	
0 24	.....	...	...	225 542	
0 24	.....	...	...	1,174 173	
1 297	1,912 151	37 175	550 289	14,989 110	

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
NORTHERN CIRCLE.					
Reserved Forest.					
Panch Mahals ...	Panch Mahals ...	.....	.....	.....	.....
Surat	Surat	.....	.....	.....	.....
North Thána ...	Thána	Girgaon ...	5/640	.....	.....
West Thána ...	Do.	.....	.....	.....	.....
East Thána ...	Do.	.....	.....	.....	.....
South Násik ...	Násik	Amboli ...	42/640	.....	.....
		Trimbak ...	8/640	.....	.....
North Násik ...	Do.	.....	.....	.....	.....
Násik Sub-Division ...	Do.	.....	.....	.....	.....
Ahmedabad ...	Ahmedabad ...	.....	.....	.....	.....
	Total ...	.....	55/640	.....	.....
Protected Forest.					
Surat ...	Surat	.....	.....	.....	.....
North Thána ...	Thána	.....	.....	.....	.....
West do. ...	Do.	.....	.....	.....	.....
East do. ...	Do.	.....	.....	.....	.....
South Násik ...	Násik	.....	.....	.....	.....
	Total ...	.....	.....	.....	.....
	Total, Northern Circle.	.....	55/640	.....	.....

Settlements during the year 1916-1917.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	4878	9 May 1916.	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	7949 1467	17 August 1916. 6 February 1917.	
.....	.....	.....	10804	10 November 1916.	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
CENTRAL CIRCLE.					
Reserved Forest.					
East Khándesh ...	East Khándesh ...	Kandari ...	$\frac{14}{640}$	...	...
West Khándesh ...	West Khándesh ...	Pangan ...	$\frac{152}{640}$	...	... 22 $\frac{405}{640}$
North Khándesh ...	Do. ...	Sangari ...	$\frac{430}{640}$	...	...
Poona	Poona	Nande, Bhauli, Aglambe, Donje, Khamgaon Sitewadi, Anjanwale Atwan, Kune, Awalas Ghuteke, Paud Kolwadi.	$\frac{495}{640}$	...	...
		Kombhalne ...	...	$\frac{32}{640}$	$\frac{156}{640}$
Sátára	Sátára	Valo, Takavli Vanekhol and Mendhaghar.	...	$\frac{45}{640}$	$\frac{175}{640}$
Kolába	Kolába	.....	...	...	...
	Total, Central Circle ...	.....	$1\frac{541}{640}$	$\frac{77}{640}$	$23\ \frac{96}{640}$

Settlements during the year 1916-1917—continued.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
R. a. p.	Rs.	Rs.			
57 8 0	.....	.....	8410	29th August 1916.	
.....	.....	.....	8850	12th September 1916.	
.....	.....		4819A	17th April 1917.	
2,283 0 0	.....	.....	296	9th January 1917.	
534 0 0	.....	.....	2758 & 59	6th March 1917.	
			11266	21st November 1916.	
			6757	8th July 1916.	
			6449	11th July 1916.	
			6847	Do-	
			1959	19th February 1917.	
			1960		
			4542	12th April 1917.	
			6279	23rd June 1916.	
			8849	22nd September 1916.	
			6206	19th May 1916.	
			11863	10th November 1915.	
			7088	11th June 1917.	
.....	.....	.....	12158	11th December 1916.	
			4441	12th April 1917.	
			6479	25th May 1917.	
			6273	19th May 1917.	
			8198	22nd August 1916.	
58 8 0	.....	.....	8280	24th August 1916.	
			10799	10th November 1916.	
			12334	14th December 1916.	
			632	17th January 1917.	
			5259	27th April 1917.	
5 0 0	.....	.....	.....	.....	
2,933 0 0	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest Settlements*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
SOUTHERN CIRCLE.					
Reserved Forest.					
Kánara, Northern...	Kánara and Dhárwár ...	Reserved Forest ...	(a) $1\frac{589}{640}$	424	$1\frac{396}{640}$
Do. Eastern ...	Kánara and Dhárwár ..	Do. ...	(b) $\frac{188}{640}$	(h) 639	$\frac{68}{640}$
Do. Central ...	Kánara ...	Do. ...	(c) $\frac{11}{640}$	731	.....
Do. Southern...	Kánara ...	Do. ...	(d) $\frac{9}{640}$	642	.....
Do. Western ...	Kánara ...	Do. ...	(e) $\frac{40}{640}$	824	$\frac{191}{640}$
Belgaum	Belgaum ...	Do. ...	(f) $1\frac{516}{640}$	680	$\frac{78}{640}$
Dhárwár and Bijápur.	Dhárwár and Bijápur ...	Do. ...	(g) $\frac{30}{640}$	497	$\frac{57}{640}$
Ratnágiri	Ratnágiri ...	Do. ...	...	19	.....
	Total, Reserved Forest ...	.....	$4\frac{103}{640}$	4,456	$2\frac{154}{640}$
Protected Forest.					
Kánara, Northern...	Kánara and Dhárwár ...	.....	.....	$\frac{57}{640}$	.....
Do. Eastern ...	Kánara and Dhárwár ...	.....	(i) $\frac{2}{640}$	(j) 5	.....
Do. Central ...	Kánara ...	.....	.....	48	.....
Do. Southern ...	Kánara ...	.....	.....	66	.....
Do. Western...	Kánara ...	.....	.....	13	.....
Belgaum	Belgaum ...	.....	.....	$\frac{12}{640}$	.....
	Total, Protected Forest ...	.....	$\frac{2}{640}$	132	.....
	Total, Southern Circle ...	.....	$4\frac{105}{640}$	4,588	$2\frac{154}{640}$

during the year 1916-1917—continued.

Cost during year.		Entire cost per square mile of areas finally settled during the year.	Government Notification of Settlement, Number and Date.		Remarks.	
In Forest Accounts.	In other Accounts.					
7	8	9	10	11	12	
Rs.	Rs.	Rs.			Areas disforested during the year.	Areas lost or gained by rectification of errors in measurements and records
					A.	A.
...	...	...	(*a*) 5077 (15-5-16) & 5081 (15-5-16)	5207 (19-5-16)	12	+495
			7355 (25-7-16)	7516 (31-7-16)		
			8926 (15-9-16)	2458 (28-2-17)		
			3059 (12-3-17) ;			
...	...	...	(*b*) 5076 & 5080 (15-5-16)	7107 (18-7-16)	1	—2
			10894 (13-11-16)	12578 (21-12-16)		
			1146 (30-1-17) ;			
...	...	...	(*c*) 5933 (13-6-16) ;		17	.....
...	...	...	(*d*) 8443 (29-8-16) ;		33	.....
...	...	...	(*e*) 10800 & 10802 (10-11-16) ;		2	—6,536
...	...	...	(*f*) 8199 (22-8-16), 1003 & 10805 (10-11-16), 4265 (21-11-16),		.....	.....
			290 (7-1-17), 4220 (4-4-17)			
...	...	...	(*g*) 5083 (16-5-16), 7505 and 7517 (31-7-16)		69	—661
...	...	...				
..	...	...			(*h*) Out of this area the transfers made during the year were :— Sq. miles. Acres. 51 437 to Kanara, C.D. ... 333 to Kanara, W.C.	
...	...	...			...	+1
					...	+2
...	...	...	(*i*) 7073 (18-7-16)		7/40	...
...	...	...			1/40	...
					...	+818
...	...	...			...	...
...	...	...				
...	...	...				
...	...	...			(*j*) Out of this area 2 square miles 299 acres were transferred to Kanara, Central Division, during the year.	
...	...	...				

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles		
			Finally settled during year.	In hand at commemnce-ment of year.	Taken in hand during year.
1	2	3	4	5	6
SIND CIRCLE.					
Sukkur	Sukkur ...	.....	...	.....	.....
	Total ...	.....	...	.....	.....
Lárkána ...	Sukkur, Lárkána and Nawábshah.	Kashinshah ...	$\frac{2}{640}$	$\frac{2}{640}$	.....
	Total ...	.....	$\frac{2}{640}$	$\frac{2}{640}$	.....
Hyderabad ...	Hyderabad ...	Deh Jamalabad ...	$\frac{88}{640}$	$\frac{197}{640}$	$\frac{17}{640}$
	Karáchi ...	Deh Halla Purana	$\frac{52}{640}$	$\frac{149}{640}$	$\frac{17}{640}$
	Nawabshah. ...	Deh Ghirkhi ...	$\frac{9}{640}$	$\frac{329}{640}$	.....
		Deh Tanghiani ...	$\frac{329}{640}$	.....	.....
	Total ...	.....	$\frac{478}{640}$	$1\ \frac{35}{640}$	$\frac{89}{640}$
Jerruck	Karáchi and Hyderabad.	.....	...	.....	.....
	Total ...	.....	...	.....	.....
	Total, Sind Circle ...	.....	$\frac{480}{640}$	$1\ \frac{37}{640}$	$\frac{89}{640}$
	GRAND TOTAL ...	.....	$6\ \frac{541}{640}$	$4{,}589\ \frac{114}{640}$	$25\ \frac{339}{640}$

Settlements during the year 1916-1917—concluded.

Cost during the year.		Entire cost per square mile of areas finally settled	Government Notification of Settlement,		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	8173	22 August 1916.	
.....	.....	.....	.....	.....	
.....	.....	.....	12520	19 December 1916	
.....	.....	.....	.....	.....	
.....	.....	.....	9240	25 September 1916.	
.....	.....	.....	3050	12 March 1916.	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
2,938 0 0	.....	.....	.....		

FORM No. 9 —*Record of Demarcation and Maintenance of Boundaries, 1916-1917.*

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Panch Mahals ...	.....	959	.....	959	.....	101	1,060	.....	61 0 0	
Surat ...	.....	835	.....	835	.....	103	933	.....	68 0 0	
North Thána ...	.....	927	.....	927	.....	19	946	.....	451 0 0	
West Thána ...	.....	755	.....	755	.....	32	787	.....	505 0 0	
East Thána ...	3	1,390	.....	1,393	30	141	1,573	50 0 0	281 0 0	
North Násik ...	3	1,544	.....	1,547	63	190	1,800	30 0 0	333 0 0	
South Násik ...	.....	1,251	.....	1,251	1	73	1,325	.....	109 0 0	
Násik Sub-Division ...	.....	717	.....	717	.....	59	776	.....	33 0 0	
Total, Northern Circle ...	6	8,378	.....	8,384	103	718	9,205	80 0 0	1,841 0 0	
CENTRAL CIRCLE.										
East Khándesh ...	.....	2,183	.....	2,183	.....	107	2,290	.....	153 0 0	
West Khándesh ...	26	817	.....	843	.....	67	910	132 0 0	539 0 0	
North Khándesh ...	.....	309	.....	309	.....	52	361	.....	370 0 0	
Poona ...	68	10	3,134	3,212	124	451	3,787*	421 0 0	396 0 0	* The difference of 1,240 miles between the last and this year's figures is due to rectification.
Sátára ...	.....	8	4,246	4,254	.....	80	4,334	.....	459 0 0	
Kolába ...	192	1,797	.....	1,989	.....	72	2,061	2,543 0 0	674 0 0	The difference of 31 miles between the last and this year's figures is due to rectification.
Total, Central Circle ...	286	5,124	7,380	12,790	124	829	13,743	3,096 0 0	2,591 0 0	
SOUTHERN CIRCLE.										
Kánara, Northern ...	1	.....	623	624	.....	14	638	4 0 0	3 0 0	
Do. Eastern ...	.....	30	1,533	1,563	.....	31	1,594	.....	207 0 0	
Do. Central ...	30	10	3,791	3,831	.....	108	3,942	.....	17 0 0	

FORM No. 9.—*Record of Demarcation and Maintenance of Boundaries, 1916-1917*—concluded.

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*concluded.*	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Kánara, Southern ...	486	.....	3,040	4,426	.....	100	4,526	504 0 0	.....	
Do. Western ...	24	.....	1,812	1,836	24	152	2,012	(a) 1,534 0 0	.....	(a) Includes Rs. 233 wages paid for last year's work.
Belgaum	6	15	1,753	1,774	114	141	2,029	419 0 0	105 0 0	
Dhárwár—Bijápur .	.....	540	675	1,215	8	29	1,252	.....	115 0 0	
Ratnágiri	.....	.....	140	140	.....	70	210	.....	.....	
Total, Southern Circle	547	595	14,270	15,412	146	645	16,203	2,461 0 0	451 0 0	
SIND CIRCLE.	Miles. ft.	Miles. ft.	Miles.	Miles. ft.	Miles.	Miles. ft.	Miles. ft.			
Sukkur	1 3,168	926 836	.....	927 4,004	.....	181 988	1,108 4,992	.....	.....	
Lárkána	1 1,320	504 4,214	.....	506 254	.....	76 704	582 958	.....	.....	
Hyderabad	11 2,706	339 3,260	.....	351 656	.....	185 1,859	536 2,515	.....	.....	
Jerruck	1 2,310	251 4,037	.....	253 1,067	.....	232 5,050	486 837	.....	.....	
Total, Sind Circle ...	15 4,224	2,022 1,787	.....	2,038 731	.....	675 3,321	2,713 4,052	.....	.....	
GRAND TOTAL ...	854 4,224	16,119 1,787	21,650	38,624 731	373	2,867 3,321	41,864 4,052	5,646 0 0	4,883 0 0	

FORM No. 10.—*Statement of Forest Areas Surveyed and*

AREAS SURVEYED AND UNDER SURVEY

Division.	SPECIAL SURVEYS—MAPS ON 4" SCALE OR OVER, BY SURVEY OF INDIA DEPARTMENT OF FOREST SURVEY BRANCH.								ORDINARY, INCLUDED IN DISTRICT SURVEYS.							
	With Interior Details.					Boundary Surveys.			With Interior Details.					Boundary Surveys.		
	With details of Growing Stock.		Without details of Growing Stock.		Total cost.	Previous.	Of the year.	Total Cost.	With details of Growing Stock.		Without details of Growing Stock.		Total Cost.	Previous.	Of the year.	Total Cost.
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs. a. p.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.
Reserved Forest.																
Panch Mahâls																
Surat																
North Thána																
West Thána																
East Thána																
South Násik																
North Násik																
Násik Sub-Division																
Ahmedabad																
Total																
Protected Forest.																
Surat																
North Thána																
West Thána																
East Thána																
South Násik																
Total, Northern Circle																
CENTRAL CIRCLE.																
Reserved Forest.																
East Khándesh			229								497	10	Not known		27	
West Khándesh			676								1			96		
North Khándesh			646													
Poona			525													
Sátára			530													
Kolába			450													
Nagar & Sholápur			737													
Total			3,793								498	10		96	27	
Protected Forest.																
Poona			11													
Sátára			1													
Kolába			74													
Total			86									10				
Total, Central Circle			3,879								498	10		96	27	
SOUTHERN CIRCLE.																
Kánara, Northern																
Do. Eastern																
Do. Central																
Kánara, Southern																
Do. Western																
Belgaum																
Dhárwár—Bijápur																
Ratnágiri																
Total, Southern Circle																
SIND CIRCLE.																
Sukkur																
Lárkána																
Hyderabád																
Jerruck																
Total, Sind Circle																
GRAND TOTAL			3,879								498	10		96	27	

under Survey during the year 1916-1917.

DURING THE YEAR.										COST.			
CHAIN AND COMPASS OR OTHER SURVEYS BY LOCAL OFFICERS.								Areas remaining to be taken under Survey.	Total Forest area at end of the year as per Forms Nos. 7 & 7A.	Previous.	Of the year.	Entire cost of all Surveys to end of the year.	Remarks.
With Interior Details.					Boundary Surveys.								
4-inch or over.		Under 4-inch.		Total Cost.	Previous.	Of the year.	Total Cost.						
Previous.	Of the year.	Previous.	Of the year.										
18	19	20	21	22	23	24	25	26	27	28	29	30	31
Sq. m	Sq. m.	Sq. m	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	...	...	...	...	...	...	...	...	332	...	.....	.....	
...	...	...	...	...	...	...	...	...	412	...	.....	.....	
...	...	...	...	...	...	...	...	...	325	...	.....	.....	
...	...	...	...	...	...	...	...	...	309	...	.....	.....	
...	...	...	...	...	...	...	...	...	460	...	.....	.....	
...	...	...	...	...	...	...	...	...	346	...	.....	.....	
...	...	...	...	...	...	...	...	...	519	...	.....	.....	
...	...	...	...	...	...	...	...	...	296	...	.....	.....	
...	...	...	...	...	...	...	...	...	19	...	.....	.....	
...	...	...	...	...	...	...	...	...	3,018	.....	.....	.....	
...	...	...	...	...	...	...	...	...	325	.....	.....	.....	
...	...	...	...	...	...	...	...	...	145	.....	.....	.....	
...	...	...	...	...	...	...	...	...	106	.....	.....	.....	
...	...	...	...	...	...	...	...	...	142	.....	.....	.....	
...	...	...	...	...	...	...	...	...	96	.....	.....	.....	
...	...	...	...	...	...	...	...	...	814	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3,832	.....	.....	.....	
...	...	...	...	...	...	...	...	37	800	24,084 0 0	.....	24,084 0 0	
...	...	...	...	...	...	...	...	...	773	63,694 0 0	.....	63,694 0 0	
...	...	...	...	...	...	...	...	223	869	1,371 0 0	.....	1,371 0 0	
...	...	...	...	...	...	...	...	494	1,010	1,11,290 0 0	.....	1,11,290 0 0	
...	...	...	...	...	...	...	...	181	710	62,569 0 0	.....	62,569 0 0	
...	...	...	...	...	...	...	...	...	450	*Nil*	.....	*Nil*	Not known.
...	...	...	...	...	...	...	...	41	702	91,230 0 0	.....	91,230 0 0	
...	...	...	...	...	...	...	...	976	5,314	3,54,238 0 0 *7,085 0 0	.....	3,54,238 0 0 *7,085 0 0	
...	...	...	...	...	...	...	...	...	11	.....	.....	.....	
...	...	...	...	...	...	...	...	...	1	.....	.....	.....	
...	...	...	...	...	...	...	...	...	74	.....	.....	.....	
...	...	...	...	...	...	...	...	...	86	.....	.....	.....	
...	...	...	...	...	...	...	...	976	5,400	3,61,323 0 0	.....	3,61,323 0 0	
...	...	...	...	...	...	...	...	...					
...	...	...	...	...	...	...	...	...					
...	...	...	...	...	...	...	...	...	3,386	3,90,231 0 0	.....	3,90,231 0 0	
...	...	...	...	...	...	...	...	...					
...	...	...	...	...	...	...	...	...					
...	...	...	...	...	...	...	...	...	682	57,104 0 0	.....	57,104 0 0	
...	...	...	...	...	...	...	...	276	496	15,268 0 0	.....	15,268 0 0	
...	...	...	...	...	...	...	...	...	19	531 0 0	.....	531 0 0	
...	...	...	...	...	...	...	...	276	4,583	4,63,184 0 0	.....	4,63,194 0 0	
...	...	...	...	...	...	...	...	...	459	.....	.....	.....	
...	...	...	...	...	...	...	...	...	231	.....	.....	.....	
...	...	...	...	...	...	...	...	...	258	.....	.....	.....	
652	...	...	...	9,095	208	...	2,902	...	226	.....	.....	11,997 0 0	
652	...	...	...	9,095	208	...	2,902	...	1,174	.....	.....	11,997 0 0	
652	...	...	...	9,095	208	...	2,902	1,252	14,989	18,24,507 0 0	.....	2,36,504 0 0	

* Represents cost of arrear mapping and cannot conveniently be distributed amongst the several Divisions, including South and North Násik.

Form No. 11.—*Progress made in Working Plans, 1916-1917.*

Division.	Area under sanctioned Working Plans.					Area not under Working Plans.			Total forest area in Form No. 7-B (Total of columns 5, 7, 8 and 9.)	Revisions.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of year.	Added during year.	Deducted during year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised Plans sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Percent.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
Panch Mahals ...	332	...	...	332	100	...	...	...	332	218	114	...	.....	
Surat ...	69	...	...	69	100	...	...	...	69	69	...	...	.....	
North Thána ...	325	...	...	325	100	...	...	...	325	...	325	...	.....	
West Thána ...	309	...	...	309	95·9	...	13	...	322	...	309	...	.....	
East Thána ...	459	...	...	459	99·9	...	1	...	460	84	375	...	.....	
South Násik ...	315	...	...	315	92·6	...	...	25	340	315	...	...	.....	
North Násik ...	400	...	...	400	80·9	...	...	94	494	400	...	...	.....	
Násik Sub-Division ...	179	...	...	179	69·3	...	...	79	258	179	...	...	.....	
Total ...	2,388	...	...	2,388	91·8	...	14	198	2,600	1,265	1,123	...	.....	
Leased Surat ...	388	...	...	388	59·2	...	267	...	655	...	...	...	.....	
Total, Northern Circle.	2,776	...	...	2,776	85·3	...	281	198	3,255*	1,265	1,123	...	.....	*Exclusive of the area in charge of the Revenue Department.

FORM No. 11—*Progress made in Working Plans, 1916-1917*—concluded.

Division.	Area under sanctioned Working Plans.					Area not under Working Plans.			Total forest area in Form No. 7 (Total of columns 5, 7, 8 and 9).	Revisions.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised plans sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CENTRAL CIRCLE.	Sq. m.	Sq. m	Sq. m.	Sq. m.	Sq m.	Sq. m.	Sq. m	Sq. m.	Sq. m.	Sq m.	Sq. m.	Sq. m.	Rs.	
East Khándesh ..	749	...	...	749	98·2	...	...	15	764	...	*400	...	.....	*Chopda, Raver and Yawal forests.
West Khándesh ...	180	...	...	180	33·2	...	151†	265	596	50	...	...	.....	†Nawapur ... Sq. m. 96 Nandurbar ... 55 151
North Khándesh ...	564	...	...	564	64·9	305†	...	...	868·7	...	564	...	.....	†Devmogra Reserves. Akrani ... 304 Shirpur (newly afforested area) ... 0·7 304·7
Kolába ..	416	...	...	416	98·8	...	...	5	421	...	...	...	.....	Shirpur, Shahada and Taloda.
Poona ..	328	...	8§	320	56·6	72	...	173	565	...	320	...	.....	§Handed over to Revenue Department.
Sátára ...	64	...	...	64	12·3	97	...	255	516	...	...	...	.....	
Total, Central Circle..	2,301	...	8	2,293	61·5	474	151	813	3,731¶	50	1,284	...	.....	¶This is exclusive of the area in charge of the Revenue Department.
SOUTHERN CIRCLE.														
Kánara, Northern ..	350	...	...	350	82·2	42	...	34	426	107	107	(a) 61	3,881	(a) The Bhagwati Plan special allowance of Rs. 336-10-8 was paid to the Working Plans Officer.
Kánara, Eastern ...	331	...	(c)54	277	47·0	78	...	235	590	157	157	(b) 30	.....	(b) The Kirwatti Plan special allowance of Rs. 100 was paid to the Working Plans Officer.
Kánara, Central ...	224	(c)54	...	278	33·3	1	104	450	833	...	26	...	.....	(c) Area transferred from Kanara, Eastern Division, to Kanara, Central Division.
Kánara, Southern ..	71	...	...	71	10·0	97	...	540	708	...	...	...	.....	
Kánara, Western ...	258	...	...	258	31·1	...	...	571	829	...	...	...	.....	
Belgaum ...	182	(d)149	...	331	48·5	305	...	46	682	168	168	...	23	(d) The Gokak Range Fuel Plan special allowance of Rs. 500 was granted to the Divisional Forest Officer, Belgaum, for compiling this Plan.
Dhárwár-Bijápur ...	...	...	...	...	...	233	59	204	496	...	...	...	4,220	
Ratnágiri ...	...	...	...	...	...	...	...	19	19	...	...	...	.....	
Total, Southern Circle .	1,416	149	...	1,565	34·1	756	163	2,099	4,583	432	458	[illegible]	8,124	
SIND CIRCLE.	Sq. m. ac.		Sq. m. ac.	Sq. m. ac.			Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.	Sq. m. ac.		
Sukkur ...	419 547	...	...	419 547	91·39	13·277	...	26 74	459 258	459 258	...	...	.....	
Lárkána ...	202 176	...	...	202 176	87·0	...	4 44	24 518	231 98	...	222 490	...	6,801	
Hyderabad ...	225 142	..	...	225 142	87·34	...	8 263	24 150	257 555	...	...	...	.....	
Jerruck ...	225 281	...	...	225 281	99·8	...	...	0 261	225 542	...	...	...	.....	
Total, Sind Circle ...	1,072 506	...	...	1,072 506	91·4	13·277	12 307	75 363	1,174 173	459 258	222 490	...	6,801	
GRAND TOTAL ...	7,565 508	149	8	7,706 506	60·5	1,243·277	607 307	3,185 363	12,743 173	2,206 258	3,089 490	91	14,925	

Division.	Name of Working Plan.	Year in which sanctioned.	Area up to date.		Estimated annual output (cubic		
			To be worked.	Actually worked.	Teak.	Junglewood.	Fuel.
1	2	3	4	5	6	7	8
			Acres.	Acres.	Cft.	Cft.	Cft.
Kánara, Northern	Supa High Forest Plan, Blocks I to VII ...	1895	Particulars not furnished by Divisional Forest Officer		96	85	.....
	Bhagwati Plan, Blocks VIII, IX and XX ...	1916			73	10	.....
	Haliyal Teak Pole Plan	1904			No estimate given Coupes to be cut		
	Plan for Block VII-A	1915	108	108	.....	.....	.....
	Dhárwár Plan	1900	11,412	11,412	.....	.....	.....
	Kalghatgi Plan	In the press.	.....	.....	.....	.....	.....
Do. Eastern	Yellápur Slopes Plan	1905	1,100	1,100	23	.....	.....
	Yellápur Aboveghat Plan	1905	54,287	48,009	39	.....	.....
	Mundgod High Forest Plan	1908	20,541	16,024	21	.....	.....
	Mundgod Teak Pole area Plan	1909	6,946	6,946	15	.....	187
	Kirvatti Teak Pole Plan	1916	.....	.....	.....	.....	.....
Do. Central	Ankola High Forest Plan	1910	.....	Particulars not furnished by the Divisional Forest			
	Ankola-Kumta Coast Fuel Plan	1912					
	Sirsi Fuel Plan	1914					
	Yekambi-Sonda High Forest Plan ...	1915					
Do. Southern	Honáwar Tali Palm Plan	1909	.....	Correct particulars not furnished by the Division			
	Kasarkod Casuarina Plantation	1911					
	Chandawar Fuel Plan	1915					
	Soppin-hosalli High Forest Plan ...	1913					
Do. Western	Gund Plan	1896	14,186	9,651	63	4	.....
	Kalinadí Slopes Plan	1911	5,173	4,604	4	55	.....
	Supa Fuel Plan	1906	9,903	4,032	Not estimated		.....
	Kárwár Fuel Plan	1903	13,121	9,651	.....	.....	1,150
	Casuarina Plantation	1911	55	55	.....	.....	25
	Kadra Teak Plantation Plan	1910	712	760	Output not estimated.		.....
Belgaum	Galihalli-Godoli Teak Pole Series, I, II ...	1900	.....	Particulars not furnished by the Divisional Forest			
	Nagargali Plan	1915					
	Khánápur Fuel Reserves Plan	1903					
	Varkhad Hemadge Plan	1903					
	Gokák Fuel Plan	1916					
Dhárwár-Bijápur	Bankápur-Hungal Plan	(In the press).	.....	.....	.....	.....	.....
	Bijápur Plan	(Under preparation).	.....	.....	.....	.....	.....
Ratnágiri	None	.....	.....	.....	.....	.....	.....

Belgaum,
29th September 1917.

feet in thousands).			Actual output for 1916-17 (cubic feet in thousands).						Brief statement of reasons for arrears.
Other produce.	Gross value.	Net profit.	Teak.	Jungle-wood.	Fuel.	Other produce.	Gross value.	Net profit.	
9	10	11	12	13	14	15	16	17	18
Value Rs. (in thousands). 24	Rs. in thousands.	Rs. in thousands. 252	Cft. 119	Cft. 79	Cft. ...	Value Rs. (in thousands). 46	Rs. in thousands. 654	Rs. in thousands. 491	
.....	98	50	186	84	11	23	46		
to meet dem	and.		146	37	177	.....	78		
.....	.....	.....	106	35	117	.....	33	235	
.....	.....	.....	108	35	130	.....	44		
.....	.....	.....	2	10	31	.....	1		
.....	34	17	59	1	...	.....	98	60	
.....	38	30	146	43	...	.....	273	181	Difficulty in procuring labour and transport.
.....	33	24	25	2	...	.....	42	27	Do. do. and large excess in the number of unsound trees over the estimate.
.....	Coupes sold standing.	11	Coupes sol	d standing	...	.....	.....	17	
.....	.....	.....	...	...	...	.....	.....	.....	
Officer.									
Forest Offi	cer.								
.....	58	32	52	1	...	.....	88	71	Fellings are 8 years in arrears for difficulties of exploitation and transport.
.....	50	26	6	19	...	.....	33	2	Barely one year behind hand.
.....	...	...	...	...	925	.....	66	13	Arrears due to distance from the M. and S. M. Railway line for which the fuel is expected.
.....	Not estimated.	19	...	62	10,072	.....	15	15	No arrears. The deficit in area represents unworkable coupes.
.....	4	3	...	...	52	.....	5	3	
.....	...	.....	1	...	...	.....	2	2	
Officer.									
.....	.....	.....	...	...	...	.....	.....	.....	
.....	.....	.....	...	...	...	.....	.....	.....	
.....	.....	.....	...	...	...	.....	.....	.....	

T. R. D. BELL,
Conservator of Forests, S. C.

FORM No. 12.—*Statement showing communications*

Division.	New works undertaken during the year.													
	Buildings.					Roads and paths.							Other works.	Total expenditure on new Works.
	Expenditure on				Total expenditure incurred.	Cart roads.		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	
	Head quarter houses.	Rest houses.	Houses for subordinate establishment.	Others.		Length.	Cost.	Length.	Cost.	Length.	Cost.				
1	2(*a*)	2(*b*)	2(*c*)	2(*d*)	3	4(*a*)	4(*b*)	4(*c*)	4(*d*)	4(*e*)	4(*f*)	5	6	7	8
NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Panch Mahâls ...	...	...	...	...	.....	...	...	...	..	...	...	...	...	...	...
Surat ...	...	...	...	3,750 0 0 500 0 0	4,250 0 0	11½	10,009 0 0	...	...	...	...	11½	10,009 0 0	1,120 0 0	15,370 0 0
North Thâna ...	...	...	4,725 0 0 3,215 0 0 5,167 0 0	...	13,107 0 0	5½	3,410 0 0	...	...	...	...	5½	3,410 0 0	405 0 0	16,922 0 0
West Thâna ...	...	...	...	...	.....	1	677 0 0	...	...	...	...	1	677 0 0	...	677 0 0
East Thâna ...	...	...	600 0 0	...	60 0 0	11	2,000 0 0	...	...	...	...	11	2,000 0 0	...	2,060 0 0
South Nâsik ...	...	...	...	...	.....	10	926 0 0	...	...	...	...	10	926 0 0	15 0 0	941 0 0
Total, Northern Circle ...	...	...	13,167 0 0	4,250 0 0	17,417 0 0	39	17,013 0 0	...	...	...	...	39	17,013 0 0	1,540 0 0	35,970 0 0
CENTRAL CIRCLE.															
East Khándesh ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	708 0 9	708 0 0
West Khándesh ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	469 0 0	469 0 0
North Khándesh ...	...	...	...	...	.....	9	1,764 0 0	...	...	...	...	9	1,764 0 0	...	1,764 0 0
Poona ...	...	...	...	...	.....	1	307 0 0	...	...	...	...	1	307 0 0	...	307 0 0
Sátára ...	...	...	200 0 0	...	200 0 0	...	...	...	...	...	...	...	...	...	200 0 0
Kolába ...	...	...	50 0 0	...	50 0 0	...	...	...	...	...	...	...	...	...	50 0 0
Total, Central Circle ...	...	...	250 0 0	...	250 0 0	10	2,071 0 0	...	...	...	...	10	2,071 0 0	1,177 0 0	3,498 0 0
SOUTHERN CIRCLE.															
*Kánara, Northern ...	48 0 0	84 0 0	107 0 0	...	239 0 0	16	4,415 0 0	...	...	3	30 0 0	19	4,445 0 0	155 0 0	4,839 0 0
Kánara, Eastern ...	...	...	...	...	.....	25	2,204 0 0	...	...	...	...	25	2,204 0 0	306 0 0	2,510 0 0
Kánara, Central ...	...	...	...	...	.....	2	377 0 0	...	...	...	...	2	377 0 0	350 0 0	727 0 0
Kánara, Southern ...	...	...	827 0 0	...	827 0 0	...	...	...	...	...	...	...	...	...	827 0 0
Kánara, Western ...	...	...	...	...	.....	9	8,818 0 0	...	...	18	74 0 0	27	8,892 0 0	13,882 0 0	22,794 0 0
Belgaum ...	...	490 0 0	52 0 0	...	542 0 0	7	2,542 0 0	...	...	...	...	7	2,542 0 0	632 0 0	3,716 0 0
Dhárwár-Bijápur ...	...	...	619 0 0	...	619 0 0	...	...	...	...	...	...	...	...	400 0 0	1,019 0 0
Ratnágiri ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Total, Southern Circle ...	48 0 0	574 0 0	1,605 0 0	...	2,227 0 0	59	18,356 0 0	...	...	21	104 0 0	80	18,460 0 0	15,725 0 0	36,412 0 0
SIND CIRCLE.															
Sukkur ...	322 5 10	...	...	...	322 5 10	...	...	...	...	...	...	...	...	236 8 0	559 13 10
Lárkána ...	...	...	257 9 1	...	257 9 1	...	...	9	150 0 0	...	...	9	150 0 0	551 7 7	959 0 8
Hyderabad ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Jerruck ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Total, Sind Circle ...	322 5 10	...	257 9 1	...	579 14 11	...	...	9	150 0 0	...	...	9	150 0 0	787 15 7	1,517 14 6
Grand Total ...	370 5 10	574 0 0	15,279 9 1	4,250 0 0	20,473 14 11	108	37,440 0 0	9	150 0 0	21	104 0 0	138	37,694 0 0	19,229 15 7	77,397 14 6

and buildings during the year 1916-1917.

Repairs executed during the year.															
Buildings.					Roads and paths.								Other works.		Remarks.
Expenditure on					Cartroads.		Bridlepaths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	Total expenditure incurred.	
Head quarter houses.	Rest houses.	Houses for subordinate establishment.	Others.	Total expenditure incurred.	Length.	Cost.	Length.	Cost.	Length.	Cost.					
9(a)	9(b)	9(c)	9(d)	10	11(a)	11(b)	11(c)	11(d)	11(e)	11(f)	12	13	14	15	16
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
24 0 0	...	105 0 0	...	129 0 0	...	...	...	...	...	...	.....	.....	94 0 0	223 0 0	
...	...	1,509 0 0	...	1,509 0 0	174	5,815 0 0	...	...	...	...	174	5,815 0 0	651 0 0	7,975 0 0	
...	...	311 0 0	...	311 0 0	...	318 0 0	...	...	...	...	.....	318 0 0	.....	629 0 0	
...	...	351 0 0	...	351 0 0	11	331 0 0	...	...	...	...	11	331 0 0	44 0 0	726 0 0	
...	...	208 0 0	...	208 0 0	...	240 0 0	...	...	...	...	.....	240 0 0	43 0 0	491 0 0	
...	...	226 0 0	...	226 0 0	11	1,113 0 0	...	...	...	...	11	1,113 0 0	.....	1,339 0 0	
24 0 0	...	2,710 0 0	...	2,734 0 0	196	7,817 0 0	...	...	...	...	196	7,817 0 0	832 0 0	11,383 0 0	
60 0 0	...	239 0 0	...	299 0 0	61	497 0 0	...	...	...	...	61	497 0	1 0 0	797 0 0	
...	...	709 0 0	...	709 0 0	2	1,549 0 0	...	...	...	...	2	1,549 0 0	.....	2,258 0 0	
16 0 0	34 0 0	483 0 0	...	533 0 0	14	125 0 0	...	746 0 0	...	...	14	871 0 0	.....	1,404 0 0	
...	56 0 0	68 0 0	...	124 0 0	2	35 0 0	30	1,157 0 0	...	...	32	1,192 0 0	.....	1,316 0 0	
...	...	233 0 0	...	233 0 0	28	3,025 0 0	...	...	...	88 0 0	28	3,113 0 0	151 0 0	3,497 0 0	
...	...	269 0 0	21 0 0	290 0 0	7	85 0 0	...	...	...	...	7	85 0 0	.....	375 0 0	
76 0 0	90 0 0	2,001 0 0	21 0 0	2,188 0 0	114	5,316 0 0	30	1,903 0 0	...	88 0 0	144	7,307 0 0	152 0 0	9,647 0 0	
101 0 0	205 0 0	579 0 0	...	885 0 0	90	2,809 0 0	...	...	...	...	90	2,809 0 0	603 0 0	4,297 0 0	* The following items have been excluded:— (a) Contribution to District Local Board for repairs of Local Board roads— Rs. 5,090 Rs. 1,000 (Contribution from District Local Board). Net Rs. 4,090. Item excluded:— Contribution to District Local Board for repairs to Local Board roads— Rs. 5,000
314 0 0	501 0 0	496 0 0	...	1,311 0 0	60	3,695 0 0	6	30 0 0	...	...	66	3,725 0 0	715 0 0	5,751 0 0	
...	425 0 0	436 0 0	...	861 0 0	4	113 0 0	...	...	...	...	4	113 0 0	8 0 0	982 0 0	
...	260 0 0	456 0 0	50 0 0	766 0 0	17	1,475 0 0	...	...	...	...	17	1,475 0 0	14 0 0	2,255 0 0	
81 0 0	805 0 0	328 0 0	107 0 0	1,321 0 0	52	12,549 0 0	...	...	...	...	52	12,549 0 0	364 0 0	14,237 0 0	
220 0 0	267 0 0	223 0 0	15 0 0	725 0 0	75	4,526 0 0	...	...	...	8 0 0	75	4,534 0 0	59 0 0	5,318 0 0	
...	...	138 0 0	...	138 0 0	...	...	...	...	...	...	.....	.....	45 0 0	183 0 0	
...	...	10 0 0	...	10 0 0	...	...	...	...	...	...	.....	.....	.....	10 0 0	
716 0 0	2,463 0 0	2,666 0 0	172 0 0	6,017 0 0	298	25,167 0 0	6	30 0 0	...	8 0 0	304	25,205 0 0	1,808 0 0	33,030 0 0	
...	...	615 0 5	...	615 0 5	...	...	...	...	...	...	.....	.....	509 6 11	1,124 7 4	
...	...	465 9 0	...	465 9 0	...	...	...	...	...	...	.....	.....	.....	465 9 0	
...	...	624 7 8	...	624 7 8	...	...	...	...	...	...	.....	.....	480 13 7	1,105 5 3	
...	...	509 3 1	...	509 3 1	...	...	...	...	...	...	.....	.....	1,603 8 10	2,112 3 11	
...	...	2,214 4 2	...	2,214 4 2	...	...	...	...	...	...	.....	.....	2,593 5 4	4,807 9 6	
816 0 0	2,553 0 0	9,501 4 2	193 0 0	13,153 4 2	603	38,300 0 0	36	1,933 0 0	...	96 0 0	644	40,629 0 0	5,935 5 4	58,867 9 6	

Form No. 13.—Statement showing register of

Forest Division.	Cases pending from previous year.			New cases of the year.														
				Injury to forest by fire.			Unauthorized felling.			Unauthorized grazing.			Other offences.			Total.		
	A.	B.	All.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NORTHERN CIRCLE.																		
Panch Mahâls ...	4	133	137	5	6	50	16	550	256	18	824	1	1	18	...	40	1,308	307
Surat ...	...	10	10	3	16	2	1	21	3	...	36	...	3	10	...	7	83	5
North Thâna ...	6	76	82	...	...	55	21	191	151	1	228	...	...	27	...	22	446	206
West Thâna ...	3	29	32	6	4	31	27	107	115	9	362	2	1	26	3	43	580	151
East Thâna ...	5	23	28	5	9	64	18	329	113	6	240	7	4	48	1	33	626	185
South Násik ...	2	...	2	1	5	41	7	163	36	9	123	...	2	38	...	19	329	77
North Násik ...	3	...	3	1	1	6	8	180	14	3	334	...	1	46	1	13	561	21
Násik Sub-Division ...	5	...	5	...	1	13	3	301	36	5	278	...	...	11	...	8	591	49
Total, Northern Circle ...	28	271	299	21	42	262	101	1,932	724	51	2,425	10	12	224	5	185	4,023	1,001
CENTRAL CIRCLE.																		
East Khándesh ...	9	...	9	7	7	47	17	238	64	16	318	3	16	162	3	56	1,725	117
West Khándesh ...	14	...	14	9	1	55	5	199	75	5	395	3	1	32	...	20	627	133
North Khándesh ...	4	...	4	6	12	43	2	171	103	1	144	2	3	64	...	12	391	148
Poona ...	8	...	8	4	33	83	25	767	128	26	878	6	8	194	1	63	1,872	218
Sátára ...	5	...	5	3	26	53	22	455	46	11	476	...	2	121	6	33	1,078	105
Kolába ...	65	...	65	23	12	36	128	314	286	35	380	4	13	65	6	199	771	332
Total, Central Circle ...	105	...	105	52	91	320	199	2,144	702	94	2,591	18	43	638	16	383	5,464	1,056
SOUTHERN CIRCLE.																		
Kánara Northern ...	8	83	91	8	4	54	3	131	32	2	195	8	...	6	...	13	336	89
Kánara Eastern ...	2	...	2	...	16	69	4	128	51	...	92	...	...	22	...	4	258	120
Kánara Central (New Division).	10	97	107	3	21	382	19	619	47	1	22	...	3	49	...	26	711	429
Kánara Southern ...	36	244	280	2	44	152	22	709	40	1	24	...	13	82	...	38	859	222
Kánara Western ...	2	...	2	5	5	83	34	243	19	6	33	...	1	15	...	46	296	102
Belgaum ...	19	125	144	6	32	156	7	340	119	17	729	3	...	27	3	30	1,128	281
Dhárwár-Bijápur (New combined Division) ...	1	80	81	3	2	63	9	207	42	5	246	10	1	57	...	18	512	115
Ratnágiri ...	1	9	10	...	1	...	...	7	1	...	...	...	...	3	...	...	11	1
Total, Southern Circle.	79	638	717	27	125	989	98	2,384	351	32	1,341	16	18	261	...	175	4,111	1,359
SIND CIRCLE.																		
Sukkur ...	34	...	34	2	...	50	52	598	404	11	808	...	2	6	...	67	1,412	454
Lárkána ...	1	...	1	...	...	22	9	217	61	6	250	...	1	5	...	16	472	83
Hyderabad ...	10	...	10	...	...	8	31	248	22	5	731	1	1	20	...	37	999	31
Jerruck ...	9	6	15	1	1	5	5	87	7	...	160	...	...	1	...	6	249	12
Total, Sind Circle ...	54	6	60	3	1	85	97	1,150	494	22	1,949	1	4	32	...	126	3,132	580
Grand Total ...	266	915	1,181	103	259	1,656	495	7,610	2,271	199	8,306	45	77	1,155	21	874	17,330	3,996

breaches of Forest Rules during the year 1916-17.

Total cases.				Disposed of during the year.														Cases pending at close of year.			Remarks.
				Convictions.				Acquittals.				Total.									
				Cases.		Persons.		Cases.		Persons.		Cases.			Persons.						
A.	B.	C.	All.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	All.	A.	B.	All.	A.	B.	All.	
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
44	1,531	307	1,832	35	1,400	92	2,672	1	...	3	...	36	1,400	1,436	95	2,672	2,767	8	131	130	
7	93	5	105	2	67	6	205	...	...	...	...	2	67	69	6	205	211	5	26	31	
28	522	206	756	19	409	37	901	1	...	3	...	20	409	429	40	901	941	8	113	121	
46	618	151	815	29	600	48	1,619	2	...	28	...	31	600	631	76	1,619	1,695	15	18	33	
38	649	185	872	34	546	130	2,118	4	...	10	...	38	546	584	140	2,118	2,258	...	103	103	
21	329	77	427	17	329	67	993	4	...	6	...	21	329	350	73	993	1,066	...	...	...	
18	561	21	593	13	561	72	1,126	1	...	5	...	14	561	575	77	1,126	1,203	2	...	2	
13	591	49	653	11	556	15	1,540	2	...	3	...	13	556	569	18	1,540	1,558	...	35	35	
213	4,894	1,001	6,108	160	4,468	497	11,174	15	...	58	...	175	4,468	4,643	525	11,174	11,699	28	426	454	
65	725	117	907	52	505	145	1,564	2	...	3	...	54	505	619	148	1,564	1,712	11	171	182	
34	627	133	794	21	415	34	1,487	5	...	7	...	26	415	441	41	1,487	1,528	8	212	220	
16	391	148	555	13	274	30	606	...	...	1	...	13	274	287	31	606	637	2*	117	119	
71	1,872	218	2,161	54	1,666	159	3,931	6	...	35	...	60	1,666	1,726	194	3,961	4,155	91	206	215	
43	1,078	108	1,229	33	879	72	1,663	2	...	5	...	35	879	914	77	1,663	1,740	8	199	207	
264	771	132	1,167	171	661	403	1,356	28	...	62	...	199	661	860	465	1,356	1,821	65	110	175	
493	5,464	1,056	7,013	344	4,460	843	10,637	43	...	113	...	387	4,460	4,847	956	10,637	11,593	103	1,004	1,107	
21	419	89	529	11	369	19	1,012	2	...	4	...	13	369	382	23	1,012	1,035	8	50	58	
6	258	120	384	5	251	6	545	1	...	1	...	6	251	257	7	545	552	...	7	7	
36	808	429	1,273	23	725	31	1,610	9	...	15	...	32	725	757	46	1,610	1,656	4	83	87	
74	1,103	222	1,399	41	886	63	2,057	11	...	17	...	52	886	938	80	2,057	2,130	22	217	239	
48	206	102	446	20	233	35	546	2	...	9	...	22	233	255	44	546	590	26	63	89	
49	1,253	281	1,583	27	1,113	54	2,043	2	...	7	...	29	1,113	1,142	61	2,043	2,104	20	140	160	
19	592	115	726	8	569	17	2,012	2	...	3	...	10	569	579	20	2,012	2,032	9	23	32	
1	20	1	22	1	18	2	20	...	...	...	...	1	18	19	2	20	22	...	2	2	
254	4,749	1,359	6,362	136	4,164	227	9,845	29	...	56	...	165	4,164	4,329	283	9,845	10,128	89	585	674	
101†	1,412	454	1,967	43	1,412	79	1,871	23	...	85	...	66	1,412	1,478	164	1,871	2,035	32	...	32	
17	472	83	572	8	439	12	476	3	...	7	...	11	439	450	19	476	495	6	33	39	
47	999	31	1,077	30	999	61	1,110	...	...	...	...	39	999	1,038	61	1,110	1,171	8	...	8	
158	255¶	22	282	4	246	8	305	2	...	4	....	6	246	252	12	305	317	6	8	14	
180	3,138	580	3,898	94	3,096	160	3,762	28	...	96	...	122	3,096	3,218	256	3,762	4,018	52	41	93	
1,140	18,245	3,996	23,381	734	16,188	1,097	35,418	115	...	273	...	849	16,188	17,037	2,020	35,418	37,438	232	2,056	2,288	

* One case withdrawn.
† Two cases withdrawn.
‡ Two were transferred to B class and 1 was withdrawn.
§ Three were withdrawn.
¶ One was transferred to A class.
(A) Means cases taken to Court.
(B) ,, ,, compounded and let off with warnings.
(C) ,, ,, undetected.

FORM No. 14.—*Area of Forest Tracts protected from fire during 1916-1917.*

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1915-1916.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
NORTHERN CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Panch Mahals	North Godhra Range.	...	88,541	37,428	562	36,866	2,372 0 0	
	South do.	...		51,828	190	51,638		
	Kálol	...	21,433	21,527	846	20,681		
	Hálol	...	27,908	28,264	1,474	26,790		
	Dohad	...	43,619	46,242	1,458	44,784		
	Jhálod	...	25,824	26,863	1,043	25,820		
	Total	...	207,325	212,152	5,573	206,579	2,372 0 0	
Surat	Dángs	...	418,719	419,808	73	419,735	6,115 0 0	
	Mándvi	...	40,882	40,887	...	40,887		
	Bulsár-Chikhali	...	2,810	2,810	...	2,810		
	Total	...	462,411	463,505	73	463,432	6,115 0 0	
North Thána	Palghar	...	74,665	31,746	601	31,145	2,864 0 0	
	Manor	...		26,705	120	26,565		
	Dahisar	...		20,963	706	20,257		
	Dáhánu	...	77,771	64,221	2,544	61,677		
	Umbargaon	...	57,773	32,798	476	32,322		
	Udawa	...	...	31,773	18	31,755		
	Total	...	210,209	208,206	4,465	203,741	2,864 0 0	
West Thána	Bassein	...	53,470	54,355	97	54,258	3,609 0 0	
	West Váda	...	32,388	32,919	317	32,602		
	Bhiwndi	...	37,741	43,970	229	43,741		
	Sálsette	...	14,396	14,809	306	14,503		
	Kalyán	...	31,345	33,438	280	33,158		
	West Murbád	...	30,997	26,479	315	26,164		
	Total	...	200,337	205,970	1,544	204,426	3,609 0 0	
East Thána	Khardi	...	104,141	52,395	1,116	51,279	4,735 0 0	
	Mokháda	...		39,032	75	38,957		
	North Sháhápur	...	62,973	45,604	3,968	41,636		
	South do.	...		24,646	577	24,069		
	East Murbad	...	23,612	29,371	371	29,000		
	East Vada	...	46,146	46,809	995	45,814		
	Igatpuri	...	52,878	53,903	630	53,273		
	Total	...	289,750	291,760	7,732	284,028	4,735 0 0	
South Násik	Násik	...	40,074	40,889	549	40,340	416 0 0	
	Dindori	...	50,177	53,734	2,419	51,315		
	North Peint	...	107,171	126,234	263	125,971		
	South Peint	...						
	Total	...	197,422	220,857	3,231	217,626	416 0 0	
North Násik	Málegaon	...	109,251	89,150	119	89,031	246 0 0	
	Baglan	...	115,032	120,029	54	119,975		
	Kalwan	...	106,972	106,898	77	106,821		
	Total	...	331,255	316,077	250	315,827	246 0 0	
Násik Sub-Division	Chander	...	21,249	30,112	20	30,092	175 0 0	
	Nandgaon	...	62,458	77,586	1,155	76,431		
	Yeola	...	25,749	25,833	36	25,797		
	Sinnar	...	31,607	31,601	40	31,561		
	Total	...	141,063	165,132	1,251	163,881	175 0 0	
	Total, Northern Circle.	...	2,039,772	2,083,659	24,119	2,059,540	20,532 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1916-1917*—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1915-1916.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
East Khándesh ...	Cháliagaon	...	36,729	38,250	1,970	36,280	263 0 0	
	Chopda	...	106,466	107,700	19,781	87,919	372 4 0	
	Edalabad	...	36,487	41,346	1,652	39,694	60 0 0	
	Jalgaon	...	37,420	38,812	622	38,190	.....	Includes Erandol Táluka.
	Jámner	...	63,556	64,390	1,907	62,483	42 0 0	Do. Bhusawal Táluka.
	Parola	...	43,842	43,921	79	43,842	3 12 0	
	Ráver	...	64,881	76,210	6,703	69,507	263 9 6	
	Yáwal	...	29,000	78,000	23,210	54,790	449 14 0	
	Total ...	...	418,381	488,629	55,924	432,705	1,453 7 6	
West Khándesh ...	Dhulia	...	74,156	75,818	2,515	73,303	134 0 0	Includes Sindkheda Táluka.
	Sákri	...	168,814	180,858	10,556	170,302	538 0 0	
	Pimpalner						827 0 0	
	Nandurbár	...	62,887	63,558	1,562	61,996	1,159 0 0	
	Navápur	...	58,329	61,377	1,165	60,212	1,762 0 0	
							25 2 3	Miscellaneous charges.
	Total ...	...	364,186	381,611	15,798	365,813	4,445 2 3	
North Khándesh ...	Akráni	...	164,134	194,683	92,884	101,799	2,280 0 0	
	Taloda	...	56,956	71,161	15,041	56,120	1,307 0 0	
	Sháhada	...	78,165	83,581	5,800	77,781	1,170 0 0	
	Shirpur, East ...							
	Do. West ...	...	195,250	206,772	10,279	196,493	3,120 0 0	
	Total ...	...	494,505	556,197	124,004	432,193	7,877 0 0	
Kolába ...	Alibág	...	27,413	27,489	288	27,201	227 8 0	
	Pen	...	29,951	29,964	18	29,946	276 4 0	
	Panvel	...	27,536	27,572	209	27,363	200 4 0	
	Karjat	...	32,250	32,520	302	32,218	408 12 0	
	Khálápur	...	21,596	21,879	180	21,699	140 4 0	
	Nágothna	...	35,218	35,226	21	35,205	403 12 0	
	Roha	...	39,219	39,281	101	39,180	476 4 0	
	Mángaon	...	26,274	26,290	41	26,249	370 0 0	
	Mahád	...	25,808	25,877	231	25,646	118 12 0	
	Dápoli	...	2,122	2,122	...	2,122	78 12 0	
	Mátherán	...	1,107	1,107	6	1,101	52 0 0	
	Total ...	...	268,494	269,327	1,397	267,930	2,752 8 0	
Poona	Akóla (A'nagar Dist.).	...	66,597	66,826	195	66,631	.....	Includes part of Sangamner Táluka.
	Ambegaon	...	38,711	38,942	277	38,665	.....	Includes parts of Indápur and Shirur Tálukas of Poona District and part of Shrigonda Táluka of Ahmednagar District.
	Dhond	...	10,993	7,015	...	7,015	.....	
	Haveli	...	24,379	26,784	1,706	25,078	108 8 0	
	Junnar	...	39,036	39,244	658	38,586	10 0 0	
	Khed	...	34,085	35,493	1,258	34,235	.....	
	Lonávla	...	46,174	47,215	747	46,468	22 8 0	
	Mával							
	Mulshi	...	26,530	26,619	285	26,334	.....	
	Purandhar	...	9,813	8,579	330	8,249	.....	Includes part of Bhimthadi Táluka.
	Rájur (A'nagar Dist.).	...	65,015	65,087	65	65,022	.....	
	Total ...	...	361,933	361,804	5,521	356,283	141 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1916-1917*—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1915-1916.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE —*concluded.*			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Sátára	Jávli	...	58,521	58,523	15	58,508	.....	
	Karád	...	33,518	33,541	109	33,432	.....	Includes part of Tasgaon Táluka.
	Mahábleshwar ...	...	43,165	43,222	182	43,040	150 0 0	
	Pátan	...	74,877	75,048	980	74,068	.....	
	Sátára	...	50,133	50,681	69	50,612	.....	Includes part of Khatao Táluka.
	Shirála	...	36,170	36,211	147	36,064	.....	
	Wái	...	33,101	33,264	66	33,198	.....	
	Total ...	...	329,485	330,490	1,568	328,922	150 0 0	
	Total, Central Circle...	...	2,236,984	2,388,058	204,212	2,183,846	16,819 1 9	
SOUTHERN CIRCLE.								
Kánara, Northern ...	Haliyál	1887-88 ...	38,654	49,081	1,363	47,718	1,117 0 0	
	Sambrani	,, ...	32,453	47,113	70	47,043	483 0 0	
	Dandeli	,, ...	11,915	53,076	...	53,076	1,062 0 0	
	Kulgi	,, ...	23,799	29,261	...	29,261	529 0 0	
	Virnoli	,, ...	33,839	46,114	3,031	43,083	633 0 0	
	Kalghatgi	1888-89 ...	44,637	44,291	1,977	42,314	1,121 0 0	
	Total ...	...	185,297	268,936	6,441	262,495	4,945 0 0	
Kánara, Eastern ...	Yellápur	1888-89 ...	87,321	114,750	623	114,127	523 0 0	
	Kirwatti	,, ...	78,075	66,126	656	65,470	1,076 0 0	
	Bhartnalli	,, ...	89,389	64,060	190	63,870	456 0 0	
	Mundgod	,, ...	49,710	64,135	805	63,330	1,798 0 0	
	Katur	,, ...	34,456	42,343	453	41,890	626 0 0	
	Dhundshi	,, ...	25,871	23,996	158	23,838	420 0 0	
	Total ...	...	364,822	375,410	2,885	372,525	4,899 0 0	
Kánara Central (New Division) ...	Sirsi	1906-07 ..	3,561	215,273	11,290	203,983	86 0 0	
	Ankola	1888-89 ...	148,07	221,806	1,362	220,444	629 0 0	
	Kumta	1899-00 ...	6,360	61,751	284	61,467	311 0 0	
	Total ...	...	157,992	498,830	12,936	485,894	1,026 0 0	
Kánara, Southern ...	Siddápur	1910-11 ...	201,721	204,441	4,819	199,622	22 0 0	
	Honávar	1900-01 ...	124,306	124,581	1,074	123,507	184 0 0	
	Bhatkal	1899-00 ...	123,800	124,034	1,258	122,776	151 0 0	
	Total ...	...	449,827	453,056	7,151	445,905	357 0 0	
Kánara, Western ...	Kárwár	1887-88 ...	81,099	81,655	432	81,223	608 0 0	
	Kadra	,, ...	192,061	205,971	1,324	204,647	1,028 0 0	
	Supa	1888-89 ...	219,193	219,286	2,707	216,579	731 0 0	
	Gund	,, ...	20,367	23,483	501	22,982	471 0 0	
	Total ...	...	512,723	530,395	4,964	525,431	2,838 0 0	
Belgaum	Belgaum	1888-89 ...	83,841	84,448	1,496	82,952	7,934 0 0	
	Khánápur, Eastern...	1886-87 ...	35,231	48,192	4,871	43,321		
	Khánápur, Central ...	1910-11 ...	68,553	77,560	3,796	73,764		
	Khánápur, Western ..	1889-90 ...	97,432	97,707	1,510	96,197		
	Gokák	1894-95 ...	94,057	99,231	1,109	98,122		
	Total ...	...	379,114	407,138	12,782	394,356	7,934 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1916-1917*—concluded.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1915-1916.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
SOUTHERN CIRCLE—*continued.*			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Dhárwár-Bijápur (New Division) ...	Dhárwár and Gadag...	1888-89 ...	13,097	18,778	732	18,046	9 0 0	
	Hangal	„ ...	9,334	9,495	158	9,337	338 0 0	
	Kod	1907-08 ...	16,878	18,052	1,101	16,951	121 0 0	
	Bádámi	1889-90 ...	1,368	17,613	1,692	15,921	172 0 0	
	Bágalkot	„ ...	2,299	4,415	1,927	2,488	128 0 0	
	Total ...	...	42,976	68,353	6,610	62,743	768 0 0	
Ratnágiri	Khed	1889-90 ...	7,709	7,709	25	7,684	10 0 0	
	Sangameshvar ...	1892-93 ...	3,710	3,711	...	3,711	10 0 0	
	Málvan	„ ...	634	634	...	634	10 0 0	
	Total ...	...	12,053	12,054	25	12,029	30 0 0	
	Total, Southern Circle.	....	2,104,804	2,614,172	52,794	2,561,378	22,797 0 0	
SIND CIRCLE.								
Sukkur	Mirpur	Not known	42,599	43,576	10	43,566	.....	
	Ghotki		54,061	53,993	120	53,873	.....	
	Sadhuja		70,571	74,761	465	74,296	.....	
	Abad		35,811	36,092	287	35,805	.....	
	Sukkur		27,288	27,745	341	27,404	.....	
	Kot Sultán	1885-86 & 1887-88.	23,251	23,255	35	23,220	.....	
	Kashmore	1895-96 ...	34,090	34,596	27	34,569	.....	
	Total ...	...	287,671	294,018	1,285	292,733	.....	
Lárkána	Garhi Yásin	Not known	32,398	32,426	93	32,333	.....	
	Lárkána		48,077	48,442	149	48,293	.....	
	Sehwán		23,006	23,543	13	23,530	.....	
	Kandiáro		43,547	43,527	120	43,407	.....	
	Total ...	....	147,028	147,938	375	147,563	.....	
Hyderabad ...	Sakrand	Not known	50,522	49,497	105	49,392	.....	
	Hála		51,456	52,227	164	52,063	.....	
	Miáni		22,902	29,877	...	29,877	.....	
	Hyderabad		2,223	2,223	...	2,223	.....	
	Unerpur		29,131	31,211	1	31,210	.....	
	Total ...	...	156,234	165,035	270	164,765	.....	
Jerruck	Tatta	1912-13	52,832	52,236	36	52,200	223 12 10	
	Sháhbandar		24,540	23,927	...	23,927	181 8 0	
	Mulchand		46,942	47,578	22	47,556	629 14 5	
	Katiar	Not known.	20,788	20,801	...	20,801	.....	
	Total ...	...	145,102	144,542	58	144,484	1,035 3 3	
	Total, Sind Circle ...	...	736,035	751,533	1,988	749,545	1,035 3 3	
	GRAND TOTAL ...	...	7,117,595	7,837,422	283,113	7,554,309	61,183 4 0	

FORM No. 15.—*Causes of*

Division or Circle.	(A) Fires caused by accident or through carelessness in burning fire lines.		(B) Fires entering the forests by crossing exterior fire-traces.		(C) FIRES BEGINNING INSIDE THE							
	Owing to carelessness or accident.											
					By workmen employed in the forests, by purchasers, cutters, etc.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire-balloons.	
	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burn in acres.
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.												
Panch Mahâls	4	257	2	2	...	...	4	906	1	3	...	...
Surat	2	2	...	...	...	...	17	41	...	...	1	10
North Thána	4	93	...	...	...	...	4	66	2	210	...	...
West do.	2	48	8	515	2	12	9	385	1	10	...	...
East do.	3	258	8	632	2	374	4	458	4	288	...	...
South Násik	5	842	7	285	1	215	22	607	...	...	...	...
North do.	...	...	1	10	...	...	1	62	...	...	...	...
Násik Sub-Division	...	...	1	4	...	...	6	155	1	8	...	...
Total	20	1,500	27	1,448	5	601	67	2,689	9	519	1	10
CENTRAL CIRCLE.												
East Khándesh	11	1,171	2	210	11	829	15	28,383	4	180	...	...
West do.	3	1,099	2	185	...	...	2	50	1	10	...	...
North do.	11	1,807	6	6,662	3	130	24	9,805	...	...	...	...
Kolába	3	37	34	332	2	6	14	140	6	276	...	...
Poona	2	18	19	270	...	...	65	2,435	2	98	...	...
Sátára	1	20	26	161	...	...	2	1	...	...		
Total	31	4,152	89	7,820	16	965	122	40,814	13	564	...	...
SOUTHERN CIRCLE.												
Kánara, Northern	2	234	2	354	...	...	19	3,095	1	105	...	...
Do. Eastern	2	9	12	77	4	61	24	520	...	...	...	...
Do. Central	1	25	18	330	2	1	53	1,638	...	...	...	...
Do. Southern	...	...	3	168	...	...	46	600	...	...	...	...
Do. Western	12	569	4	207	6	166	33	1,180	...	...	...	...
Belgaum	2	12	24	2,045	13	741	12	268	5	15	...	...
Dhárwár—Bijápur	2	573	3	625	...	...	13	1,099	5	181	...	...
Ratnágiri	...	...	1	25	...	...	...	...	...	...	...	...
Total	21	1,422	67	3,831	25	969	200	8,310	11	301	...	...
SIND CIRCLE.												
Sukkur	...	...	4	47	...	...	7	99	1	4	...	...
Lárkána	...	...	...	...	...	...	...	...	1	8	...	...
Hyderabad	1	62	...	...	1	16	...	..	...	...	...	..
Jerruck	...	...	...	...	2	14	1	5	...	...	...	...
Total	1	62	4	47	3	30	8	104	2	12	...	...
Grand Total	73	7,136	187	13,146	49	2,565	397	51,908	35	1,396	1	10

Forest Fires during 1916-17.

Reserve or fire-traced Area.												
By Intentional Firing.								Causes Unknown.		Total (A), (B) and (C).		Remarks.
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.						
No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	
14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	2	500	...	...	7	1,409	40	3,905	53	5,573	Plus 8 on account of breaches of Rules in which no area was burnt.
...	...	...	...	...	...	18	51	1	20	21	73	
...	...	15	534	...	...	21	810	30	3,562	55	4,465	
...	...	3	53	5	115	20	575	11	406	41	1,544	
...	...	...	...	...	...	10	1,120	57	5,722	78	7,732	
...	...	1	180	9	1,085	33	2,087	2	17	47	3,231	
...	...	...	...	...	...	1	62	6	178	8	250	
...	...	...	...	...	...	7	163	6	1,084	14	1,251	
...	...	21	1,267	14	1,200	117	6,277	153	14,894	317	24,119	
...	...	...	...	3	610	33	30,032	35	24,511	81	55,924	
...	...	...	...	10	1,137	13	1,197	50	13,317	68	15,798	
...	...	...	...	16	12,100	43	22,035	12	93,500	72	124,004	
...	...	...	...	...	...	22	422	17	606	76	1,397	
...	...	...	...	18	1,022	85	3,555	18	1,678	124	5,521	
1*	...	...	...	...	...	3	1	56	1,386	86	1,568	*Breach of rules in which no area was burnt.
1	...	...	...	47	14,899	199	57,242	188	134,998	507†	204,212	†Includes 44 cases not accounted for in Form 13.
1	321	...	...	...	...	21	3,431	41	2,422	66	6,441	
6	599	8	372	8	650	50	2,202	21	597	85	2,885	
...	...	2	1	8	808	65	2,448	322	10,133	406	12,936	
...	...	...	...	...	...	46	600	179	6,383	228	7,151	
1	35	1	40	...		41	1,421	36	2,767	93	4,964	
...	...	2	2	54	7,570	86	8,596	82	2,129	194	12,782	
...	...	4	388	1	220	23	1,888	40	2,524	68	5,610	
...	...	...	...	...	...	...	...	...	...	1	25	
8	955	17	803	71	9,248	332	20,586	721	26,955	1,141	52,794	
10	500	...	...	2	1	20	604	28	634	52	1,285	
...	...	...	...	...	...	1	8	21	367	22	375	
...	...	...	...	...	...	1	16	6	192	8	270	
1	23	...	...	2	15	6	58	...	...	6	58	
11	524	...	...	4	16	28	686	55	1,193	88	1,988	
20	1,479	38	2,070	136	25,363	676	84,791	1,117	178,040	2,053	283,113	

FORM No. 16.—*Area closed and open to grazing during 1916-1917.*

Division.	AREA IN SQUARE MILES.						Remarks.
	Closed to all animals.		Open to grazing				
			Of all animals.		Of all animals except browsers (camels, sheep, and goats).		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
RESERVED FOREST.							
Panch Mahâls	92 0	19 0	.....	.....	221 0	.....	
Surat	13 0	55 0	13 0	.....	.....	331 0	
North Thána	79 0	.....	.....	.....	246 0	.....	
West do.	76 0	.....	.....	.....	233 0	.....	
East do.	121 0	.....	.....	.....	339 0	.....	
South Násik	62 0	9 0	6 0	.....	269 0	.....	
North do.	92 0	.....	183 0	.....	244 0	.....	
Násik Sub-Division	24 0	7 0	46 0	.....	219 0	.....	
Ahmedabad	.....	.....	19 0	.....	.....	.....	
Total, Reserved Forest	559 0	90 0	267 0	.....	1,771 0	331 0	
PROTECTED FOREST.							
Surat	.....	.....	325 0	.....	.....	.....	
North Thána	.....	.....	145 0	.....	.....	.....	
West do.	.....	.....	92 0	.....	13 0	.....	
East do.	.....	.....	142 0	.....	.....	.....	
South Násik	.....	.....	96 0	.....	.....	.....	
Total, Protected Forest	.....	.....	800 0	.....	13 0	.....	
Total, Northern Circle	559 0	90 0	1,067 0	.....	1,784 0	331 0	
CENTRAL CIRCLE.							
RESERVED FOREST.							
East Khándesh	210 0	58 0	37 0	.....	495 0	.....	
West do.	90 0	.....	177 0	.....	506 0	.....	
North do.	127 0	.....	.....	.....	741 0	.....	
Poona	27 0	60 0	456 0	.....	467 0	.....	
Sátára	106 0	.....	195 0	.....	410 0	.....	
Kolába	56 0	1 0	29 0	.....	364 0	.....	
Ahmednagar-Sholapur	.....	.....	702 0	.....	.....	.....	
Total, Reserved Forest	616 0	119 0	1,596 0	.....	2,983 0	.....	
PROTECTED FOREST.							
Poona	.....	.....	.....	.....	11 0	.....	
Sátára	.....	.....	.....	.....	1 0	.....	
Kolába	.....	.....	74 0	.....	.....	.....	
Total, Protected Forest	.....	.....	74 0	.....	12 0	.....	
Total, Central Circle	616 0	119 0	1,670 0	.....	2,995 0	.....	
SOUTHERN CIRCLE.							
Kánara, Northern	213 0	.....	2 0	.....	211 0	.....	
Do. Eastern	257 0	.....	.....	.....	333 0	.....	
Do. Central	89 0	.....	.....	.....	744 0	.....	
Do. Southern	18 0	.....	.....	.....	690 0	.....	
Do. Western	261 0	.....	.....	.....	565 0	.....	
Belgaum	101 0	.....	46 0	.....	535 0	.....	
Dhárwár-Bijápur	14 0	12 0	206 0	.....	264 0	.....	
Ratnágiri	9 0	.....	.....	.....	10 0	.....	
Total, Southern Circle	962 0	12 0	254 0	.....	3,355 0	.....	
SIND CIRCLE.							
Sukkur	49 0	.....	123 0	.....	287 0	.....	
Larkana	17 0	.....	134 0	.....	80 0	.....	
Hyderabad	16 0	.....	187 0	.....	55 0	.....	
Jerruck	.....	2 0	117 0	.....	90 0	17 0	
Total, Sind Circle	82 0	2 0	561 0	.....	512 0	17 0	
GRAND TOTAL	2,219 0	223 0	3,552 0	.....	8,646 0	348 0	

FORM No. 17.

FORM No. 17.—*Return of Grazing*

Division.	Grazing on Payment—Number of Animals.												
	At full rates.						At privileged rates.						
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received. Actual.	Fees received. Value at full rates.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NORTHERN CIRCLE.						Rs. a. p.						Rs. a. p.	Rs. a. p.
Panch Mahâls ...	2,115	3,945	...	...	...	4,087 8 0	1,043	3,328	...	...	...	568 9 6	6,844 8 0
Surat ...	...	...	...	...	...	.....	13,123	...	...	...	...	2,111 12 0	13,123 0 0
North Thâna ...	...	...	...	...	...	.....	5	72	...	...	...	14 12 0	51 4 0
West do. ...	85	3,525	...	...	...	2,309 6 0	34	974	...	...	...	279 13 0	1,036 4 0
East do. ...	193	1,239	...	...	...	1,015 10 0	2,352	4,293	...	...	...	1,878 7 0	5,625 12 0
South Násik ...	1	84	...	...	...	85 0 0	6,415	48,174	28	...	72	7,436 0 0	54,689 0 0
North do. ...	14	293	...	...	228	535 0 0	15,891	128,374	92,820	...	2,037	25,736 10 0	1,69,507 0 0
Násik Sub-Division ...	11	65	...	...	309	365 0 0	8,221	51,152	31,223	...	549	16 221 9 0	68,112 12 0
Total, Northern Circle ...	2,419	9,151	...	...	537	8,417 8 0	47,392	236,367	124,071	...	2,658	54,247 8 6	3,18,969 8 0
CENTRAL CIRCLE.													
East Khándesh ...	858	14,477	...	...	109	15,444 0 0	36,139	192,480	4,710	...	434	31,458 0 0	2,33,763 0 0
West do. ...	170	2,323	...	...	843	3,336 0 0	15,381	115,997	31,383	...	1,430	22,214 0 0	1,64,191 0 0
North do. ...	9,688	73,594	...	...	3,181	38,356 0 0	...	...	...	...	...	.....	.....
Poona ...	5	77	4	...	15	99 0 0	23,273	156,424	45,445	...	830	28,447 0 0	1,83,465 0 0
Sátára ...	...	9	...	...	...	9 0 0	29,847	96,587	..	...	141	16,519 0 0	1,26,575 0 0
Kolába ...	109	62	...	...	...	171 0 0	20,481	71,356	...	...	...	12,210 0 0	91,837 0 0
Total, Central Circle ...	10,830	90,542	4	...	4,148	57,415 0 0	125,121	632,844	81,538	...	2,835	1,10,848 0 0	7,99,831 0 0
SOUTHERN CIRCLE.													
Kánara, Northern ..	255		...	...	...	255 0 0	37,347		216	...	...	6,338 0 0	37,401 0 0
Do. Eastern ...	...		...	...	...	.....	34,943		2	...	23	7,873 0 0	34,967 0 0
Do. Central ...	1,575		...	...	...	1,579 0 0	46,071		...	...	...	6,153 0 0	45,321 0 0
Do. Southern ...	26		...	...	...	26 0 0	117,759		51	...	...	10,925 0 0	1,17,772 0 0
Do. Western ...	...		...	...	...	.....	37,406		...	...	...	7,749 0 0	37,406 0 0
Belgaum ...	3,889		...	...	...	3,889 0 0	41,842		...	...	...	10,181 0 0	41,842 0 0
Dhárwár—Bijápur ...	677		1,117	...	9	959 0 0	135,808		...	...	445	16,674 0 0	1,36,253 0 0
Ratnágiri ...	...		...	...	...	.....	.....		...	...	...	.....	.....
Total, Southern Circle ...	6,422		1,117	...	9	6,708 0 0	451,176		269	...	468	65,893 0 0	4,50,962 0 0
SIND CIRCLE.													
Sukkur ...	6,482	8,888	31,096	482	347	13,748 0 0	...	...	...	...	...	.....	.....
Lárkána ...	5,014	2,797	17,651	434	135	6,991 0 0	...	...	...	...	...	.....	.....
Hyderabad ...	3,494	3,348	29,292	598	52	9,994 0 0	...	...	...	...	...	.....	.....
Jerruck ...	4,162	3,057	7,633	734	148	7,217 0 0	...	...	...	...	...	.....	.....
Total, Sind Circle ...	19,107	18,090	85,672	2,248	682	37,950 0 0	...	...	...	...	...	.....	.....
GRAND TOTAL ...	156,561		86,793	2,248	5,376	1,10,490 8 0	1,492,900		205,878	...	5,931	2,30,988 8 6	15,69,782 8 0

in the State Forests during 1916-1917.

Grazing Fees—Number of Animals.													
By right under Settlement.						During pleasure of Government, or otherwise than under Settlement.						Total Value of Fees at full rates.	Grand Total of Value at full rates.
Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28
					Rs. a. p.						Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	...	.....	33,120	127,846	...	...	...	93,013 0 0	93,043 0 0	1,03,975 0 0
...	...	...	...	...	.....	1,719	25,551	4,217	...	71	31,558 0 0	31,558 0 0	44,681 0 0
...	...	...	...	...	.....	14,000	87,402	...	...	...	72,126 0 0	72,126 0 0	72,177 4 0
...	...	...	...	...	.....	23,269	82,201	...	...	29	80,480 0 0	80,480 0 0	83,825 10 0
...	...	...	...	...	.....	13,974	60,237	...	...	...	55,115 0 0	55,115 0 0	61,756 6 0
...	...	...	...	...	.....	1,050	4,500	...	...	300	5,850 0 0	5,850 0 0	60,624 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,70,042 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	68,497 12 0
...	...	...	...	...	.....	87,132	387,737	4,217	...	400	3,38,172 0 0	3,38,172 0 0	6,65,579 0 0
...	...	...	...	...	.....	2,366	9,868	...	...	83	12,317 0 0	12,317 0 0	2,61,524 0 0
...	...	...	...	...	.....	995	16,556	80	...	110	17,741 0 0	17,741 0 0	1,85,268 0 0
...	...	...	...	...	.....	3,181	27,845	...	...	98	3,890 0 0	3,890 0 0	42,246 0 0
...	...	...	...	...	.....	21	125	...	...	...	146 0 0	146 0 0	1,83,710 0 0
...	...	...	...	...	.....	10	44	...	...	...	54 0 0	54 0 0	1,26,638 0 0
476	1,142	...	...	...	1,618 0 0	1,822	573	...	...	...	2,415 0 0	4,033 0 0	96,041 0 0
476	1,142	...	...	...	1,618 0 0	8,395	55,011	80	...	291	36,563 0 0	38,181 0 0	8,95,427 0 0
...	...	...	...	...	.....	9,257		...	...	...	9,257 0 0	9,257 0 0	46,913 0 0
...	...	...	...	...	.....	8,624		...	...	...	8,624 0 0	8,624 0 0	43,591 0 0
...	...	...	...	...	.....	80		...	...	...	80 0 0	80 0 0	46,980 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	1,17,798 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	37,406 0 0
...	...	...	...	...	.....	12,608		...	...	...	12,608 0 0	12,608 0 0	58,339 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	1,37,212 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	.....
...	...	...	...	...	.....	30,569		...	...	...	30,569 0 0	30,569 0 0	4,88,239 0 0
1,190	4,493	...	...	41	2,592 0 0	22	465	...	...	797	392 0 0	2,984 0 0	16,732 0 0
879	2,481	...	...	1	809 0 0	53	45	...	130	451	317 0 0	1,126 0 0	8,117 0 0
9	246	...	...	...	99 0 0	76	178	...	724	514	1,339 0 0	1,438 0 0	11,432 0 0
350	228	60	2	6	359 0 0	407	516	102	59	2,252	1,094 0 0	1,453 0 0	8,670 0 0
2,428	7,448	60	2	51	3,859 0 0	558	1,204	102	913	4,014	3,142 0 0	7,001 0 0	44,951 0 0
2,904	8,590	60	2	51	5,477 0 0	570,606		4,399	913	4,705	4,08,446 0 0	4,13,923 0 0	20,94,196 0 0

FORM NO. 18.—*Statement showing Area of Plantations in the Bombay Presidency, including Sind, for the year 1916-1917.*

Division.	Kind of Plantation.	Area in Acres.				Expenditure during the Year.		Total expenditure from commencement.		Revenue during the year.	Total revenue from date of creation of plantation.	Remarks.
		On 1st July 1916.	Added during the year.	Excluded during the year.	Area on 30th June 1917.	Creation.	Upkeep.	Creation.	Upkeep.			
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.						Rs. a.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
Panch Mahâls ...	Regular plantations .	4,889	...	...	4,889	...	.....	2,999	13,501	...	...	
Surat ...	Do. ...	12	...	...	12	...	50 0 0	...	50	...	...	
North Thâna ...	Do. ...	38	57	...	95	301 0	2,381 0 0	1,440	3,550	25	25	
West do. ...	Do. ...	28	...	...	28	...	629 0 0	1,404	7,861	...	...	
East do. ...	Do. ...	71	...	65	6	...	.....	...	...	...	...	
	Total ...	5,038	57	65	5,030	301 0	3,060 0 0	12,843	24,962	25	25	
Panch Mahâls ...	Cultural operations .	...	225	...	225	206 0	.....	...	...	...	...	
Surat ...	Do. ...	1,410	...	...	1,410	582 0	509 0 0	...	...	...	...	
North Thâna ...	Do. ...	1,149	153	...	1,302	101 0	.....	...	1,537	...	...	
West do. ...	Do. ...	344	1,598	315	1,627	176 0	.....	1,404	7,861	...	...	
East do. ...	Do. ...	...	230	230	...	...	90 0 0	...	...	...	...	
Násik Sub-Division.	Do. ...	323	88	199	212	144 0	.....	...	...	...	...	
	Total ...	3,226	2,294	744	4,776	1,179 0	599 0 0	1,404	9,398	...	...	
	Total, Northern Circle	8,264	2,351	809	9,806	1,480 0	3,659 0 0	14,247	34,360	25	25	
CENTRAL CIRCLE:												
East Khándesh ...	Regular plantations...	...	...	...	...	...	.....	...	...	...	...	
West do. ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
North do. ...	Do. ...	...	...	...	...	1 1	*19 4 6	...	...	...	...	*Raising of plants and purchase of seeds.
Poona ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
Sátára ...	Do. ...	247	11	...	258	481 0	.....	...	...	...	...	
Kolába ...	Do. ...	103	7	1	109	191 0	411 0 0	2,255	2,217	521	1,908	
	Total ...	350	18	1	367	673 0	430 0 0	2,255	2,217	521	1,908	
East Khándesh ...	Cultural operations ...	55	81	55	81	149 0	.....	...	...	...	...	
West do. ...	Do. ...	435	...	...	435	36 0	.....	...	...	...	...	
North do. ...	Do. ...	...	...	...	...	27 0	.....	...	...	...	...	
Poona ...	Do. ...	3,870	1,859	...	5,729	1,795 0	.....	...	...	...	...	
Sátára ...	Do. ...	911	839	...	1,750	1,119 0	.....	...	...	...	...	
Kolába ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
	Total ...	5,271	2,779	55	7,995	3,126 0	.....	...	...	...	...	
	Total, Central Circle...	5,621	2,797	56	8,362	3,799 0	430 0 0	2,255	2,217	521	1,908	
SOUTHERN CIRCLE.												
Kánara Central ...	Regular plantations .	161	10	...	171	...	1,213 0 0	1,590	11,637	...	...	
Do. Southern.	Do. ..	612	8	...	620	1,841 0	.....	69,482	...	2,472	18,231	
Do. Western...	Do. ...	187	19	...	206	...	998 0 0	1,285	12,553	...	5	
Belgaum ...	Do. ...	(a) 6	...	...	6	...	.....	36	78	...	...	(a) Omitted in previous years through misunderstanding.
Dhárwár-Bijápur.	Do. ...	10	...	...	10	...	.....	43	...	35	516	
Ratnágiri ...	Do. ...	152	3	...	155	78 0	334 0 0	3,873	3,748	202	6,784	
	Total ...	1,128	40	...	1,168	1,919 0	2,545 0 0	76,309	28,016	2,709	25,536	
Kánara, Eastern .	Cultural operations ...	...	17,995	...	17,995	2,961 0	.....	2,961	...	...	...	
Dhárwár-Bijápur.	Do. ...	...	1,702	...	1,702	360 0	.....	360	...	...	...	
	Total ...	...	19,697	...	19,697	3,321 0	.....	3,321	...	...	...	
	Total, Southern Circle	1,128	19,737	...	20,865	5,240 0	2,545 0 0	79,630	28,016	2,709	25,536	
SIND CIRCLE.												
Sukkur ...	Regular plantations...	233	...	...	233	14 0	2,281 0 0	3,909	53,152	423	7,467	
Lárkána ...	Do. ...	16	2	...	18	...	282 0 0	56	2,600	...	...	
Hyderabad ...	Do. ...	30	1	...	31	32 0	1,155 0 0	1,006	11,644	449	4,233	
Jerruck ...	Do. ...	22	...	...	22	23 0	453 0 0	439	4,600	...	...	
	Total ...	301	3	...	304	69 0	4,171 0 0	5,410	71,996	872	11,700	
Sukkur ...	Cultural operations ...	4,717	3,104	180	7,641	12 0	.....	1,132	39	...	...	
Lárkána ...	Do. ...	2,029	2,548	1,800	2,777	124 0	189 0 0	373	2,266	...	...	
Hyderabad ...	Do. ...	5,107	2,607	1,883	5,831	662 0	1,222 0 0	2,345	8,176	...	...	
Jerruck ...	Do. ...	11,566	4,340	1,243	14,663	1,575 0	36 0 0	5,973	5,362	...	...	
	Total ...	23,419	12,599	5,106	30,912	2,373 0	1,447 0 0	9,823	15,783	...	...	
	Total, Sind Circle ...	23,720	12,602	5,106	31,216	2,442 0	5,618 0 0	15,233	87,779	872	11,700	
	GRAND TOTAL ...	38,733	37,487	5,971	70,249	12,961 0	12,252 0 0	111,365	152,372	4,127	39,169	

FORM No. 19.

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division.	Timber in the rough: Logs.					Timber in the rough: Poles.					Sawn or Squared Timber.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
NORTHERN CIRCLE.															
Reserved Forest.															
Panch Mahals	...	41	...	...	41	3	189	...	...	192	...	...	...	...	...
Surat	...	55	3	...	58	...	...	...	...	...	...	...	...	..	...
North Thána	...	22	...	...	22	32	588	...	...	619	...	...	...	...	...
West Thána	...	19	...	...	19	1	211	...	...	213	...	32	...	...	32
East Thána	...	32	...	...	32	5	183	...	...	189	...	80	...	...	80
South Násik	...	56	...	...	56	...	205	1	...	206	...	...		...	...
North Násik	...	...	...	...	...	...	38	1	...	38	...	...	...	...	...
Násik Sub-Division	...	...	...	...	...	...	4	...	...	4	...	...	...	...	...
Total, Reserved Forest ...	...	225	3	...	228	41	1,418	2	...	1,461	...	112	...	...	112
Protected Forest.															
North Thána	...	15	...	...	15	...	178	...	...	178	...	...	...	...	...
West Thána	...	1	...	..	1	...	57	...	...	57	...	30	...	...	30
East Thána	...	12	...	...	12	...	40	4	...	44	...	31	...	...	31
South Násik	...	22	...	...	22	...	44	...	...	44	...	...	...	...	...
Total, Protected Forest ...	...	50	...	...	50	...	319	4	...	323	...	61	...	...	61
Unclassed Forest.															
North Thána	...	1	...	...	1	...	42	...	...	42	...	...	...	...	...
South Násik	...	5	...	...	5	...	12	...	...	12	...	...	...	...	...
Total, Unclassed Forest ...	...	6	...	...	6	...	54	...	...	54	...	...	...	...	...
Leased Forest.															
Surat	59	58	...	76	193	...	...	...	...	...	7	...	...	...	7
Total, Northern Circle ...	59	339	3	76	477	41	1,791	6	...	1,838	7	173	...	...	180

during the year 1916-1917, and Agency of Exploitation.

Miscellaneous.					Total Timber.					Fuel.					Total Outturn.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	3	229	...	...	232	8	896	...	1,467	2,371	2,603
...	83	6	...	89	...	55	3	...	58	...	12	...	...	12	70
...	...	...	...	...	32	610	...	...	642	16	1,302	...	1,132	2,450	3,092
...	31	...	...	31	3	294	...	...	297	9	1,746	...	1,127	2,882	3,179
...	...	...	...	...	5	295	...	...	300	4	1,895	...	2,740	4,639	4,939
...	...	...	...	...	...	262	1	...	263	18	11	...	30	59	322
...	...	...	...	...	...	37	1	...	38	...	124	...	...	124	162
...	...	...	...	...	...	4	...	...	4	...	36	7	...	43	47
...	114	6	...	120	43	1,786	5	...	1,834	55	6,022	7	6,496	12,580	14,414
...	...	...	...	...	...	193	...	...	193	...	77	...	566	643	836
...	...	...	...	...	...	88	...	...	88	...	10	...	96	106	194
...	...	...	...	...	...	83	4	...	87	...	60	...	...	60	147
...	...	...	...	...	...	66	...	...	66	...	...	...	...	...	66
...	...	...	...	...	...	430	4	...	434	...	147	...	662	809	1,243
...	...	...	...	...	...	43	...	...	43	...	...	...	...	...	43
...	...	...	...	...	...	17	...	...	17	...	11	...	...	11	28
...	...	...	...	...	...	60	...	...	60	...	11	...	...	11	71
...	...	...	...	...	66	58	...	76	200	13	...	...	1,500	1,513	1,713
...	114	6	...	120	109	2,334	9	76	2,528	63	6,180	7	8,658	14,913	17,441

FORM NO. 19.—*Outturn (of cubic feet, solid) of Timber and Fuel*

Division.	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.					SAWN OR SQUARED TIMBER.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft	C. ft	C.ft.	C.ft.	C. ft.
CENTRAL CIRCLE.															
East Khándesh	...	...	...	...	...	...	71	1	...	72	...	...	...	..	...
West Khándesh	...	...	...	...	...	...	181	4	...	185	...	...	...	...	...
North Khándesh	...	6	...	...	6	...	117	1	...	118	...	22	...	...	22
Poona	...	4	...	...	4	7	177	3	...	187	...	...	...	...	...
Sátára	...	...	...	...	...	3	33	6	...	42	...	...	...	...	...
Kolába	...	31	...	...	31	...	180	2	...	182	...	...	...	...	...
Total, Central Circle ...	...	41	...	...	41	10	759	17	...	786	...	22	...	...	22

during the year 1916-1917, and Agency of Exploitation—continued.

Miscellaneous.					Total Timber.					Fuel.					Total.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
17	18	19.	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	...	71	1	...	72	25	751	1	...	777	849
...	...	...	...	...	...	181	4	...	185	...	199	...	10	209	394
...	...	...	...	...	1	144	1	...	146	...	450	...	36	486	632
...	...	...	...	...	7	181	3	...	191	130	288	...	...	418	609
...	...	...	...	...	3	33	6	...	42	127	3	...	100	230	272
...	2	...	...	2	...	213	2	...	215	61	256	...	361	1,678	1,893
...	2	...	...	2	11	823	17	...	851	343	1,947	1	507	3,798	4,649

FORM NO. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division. *(As readjusted on 1st February 1916 as per Government Order No. 11396 of 27th October 1915, Revenue Department).	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11
Thousands of	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SOUTHERN CIRCLE.										
Kánara, Northern*	274	433	2	...	709	4	317	1	...	322
Kánara, Eastern	99	41	...	...	140	7	139	5	...	151
Kánara, Central	251	54	1	...	306	10	6	...	...	16
Kánara, Southern	0·3	51	10	...	61	...	...	...	...	...
Kánara, Western	102	71	6	...	179	35	1	...	...	36
Belgaum	39	55	...	...	94	48	26	5	...	79
Dhárwár-Bijápur	...	...	...	...	...	...	11	4	...	15
Ratnágiri	...	1	...	...	1	...	1	...	...	1
Total, Southern Circle ...	765	706	19	...	1,490	104	501	15	...	620

Sawn or Squared Timber.					Miscellaneous.		
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C.ft.	C.ft.	C. ft.		C. ft.	
86	...	...	...	86	..... Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces No. 427, Chips bags 15.	.....	.....
105	...	...	...	105	..... Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 16 11 26	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 12 11 17	.....	.....
...	...	...	...	...	29	1	.....
7	9	...	...	16	..... Sandal trees 1,530, 34 pieces 4 baskets chips.	.....	.....
1	...	...	...	1	..... Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	.....	.....
...	...	...	...	...	.....	.....	.....
199	9	...	...	208	29 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, 1,530 trees, Chips bags 108.	1	9

Miscellaneous—*continued.*		Total Timber.		
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	364 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.	750	3
.....	..... Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	211 Sandalwood— Kh. mds. lbs. 33 5 18½ Rejected pieces 706, Chips bags 76.	180	5
.....	..... Sandalwood— Kh. mds. lbs. 16 11 26	261 Sandalwood— Kh. mds. lbs. 16 11 26	60	1
.....	..... Sandalwood— Kh. mds. lbs. 12 11 17	..... Sandalwood— Kh. mds. lbs. 12 11 17	51	10
.....	30	166	73	6
.....	..... Sandal trees 1,530, 34 pieces 4 baskets chips.	94 Sandal trees 1,530, 34 pieces, 4 baskets chips.	90	5
.....	9 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	1 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.	11	13
.....	.....	.....	2	.....
.....	39 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, trees 1,530, Chips bags 108.	(a) 1,097 andalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, 1,530 trees Chips bags 108.	1,217	43

(a) This includes 3 thousand cubit feet of last year transferred from Dhárwár-Bijápur to Kánara N. and E. Divisions during the year.

during the year 1916-1917 and Agency of Exploitation—continued.

TOTAL TIMBER—*continued.*		FUEL.					
Right-holders.	Total.	Government.	Purchasers.	Free grantees	Right-holders.	Total.	Total Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	1,117 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.	...	477	...	..	477	1,594 Sandalwood— Kh. mds. lbs. 13 12 21 Rejected pieces 427, Chips bags 15.
.....	396 Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.	...	325	8	...	333	729 Sandalwood— Kh. mds. lbs. 39 5 18½ Rejected pieces 706, Chips bags 76.
.....	322 Sandalwood— Kh. mds lbs. 16 11 26	...	484	10	...	494	816 Sandalwood— Kh. mds. lbs. 16 11 26
.....	61	241	563	2	...	806	867 Sandalwood— Kh. mds. lbs. 12 11 17
.....	245	920	1,095	2	...	2,017	2,262
.....	189 Sandal trees 1,530, 34 pieces 34 baskets chips.	2,948	1,873	...	...	4,821	5,010 Sandal trees 1,530, 34 pieces 3 baskets chips.
.....	25 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces, 1,175, Chips stacks 13.	6	301	...	...	307	332 Sandalwood— Kh. mds. lbs. 35 19 3 Rejected pieces 1,175, Chips stacks 13.
.....	2	...	33	...	...	33	35
.....	2,357 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342, 1,530, trees Chips bags 108.	4,115	5,151	22	...	9,288	11,645 Sandalwood— Kh. mds. lbs. 1 8 1 1½ Rejected pieces 2,342, 1,530 trees Chips bags 108.

* This is exclusive of 300 thousand c. ft. of Timber and 3,042 thousand c. ft. of Fuel shown under privilege holder in Chapter II, Section V (*c*)—Outturn and sources of forest produce.

133483

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division.		Timber in the rough: Logs.					Timber in the rough: Poles.				
		Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1		2	3	4	5	6	7	8	9	10	11
Thousands of		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SIND CIRCLE.											
Sukkur	Actuals	·1	1	...	...	1	...	...	...	...	...
	Estimate	·3	48	...	...	48	1	33	·4	...	35
	Total	·4	49	...	...	49	1	33	·4	...	35
Lárkána	Actuals	...	...	...	...	...	...	...	1	...	1
	Estimate	·1	...	...	...	...	·5	90	...	...	91
	Total	·1	...	...	...	...	·5	90	1	...	92
Hyderabad	Actuals	·1	1	...	...	1	...	...	...	...	...
	Estimate	...	139	...	...	139	·2	·1	...	...	...
	Total	·1	140	...	...	140	·2	·1	...	...	...
Jerruck	Actuals	4·4	...	...	...	5	...	...	·1	...	...
	Estimate	...	25	...	...	25	·3	16	·5	...	17
	Total	4·4	25	...	...	30	·3	16	·6	...	17
Sind Circle		5	214	...	...	219	2	140	2	...	144
GRAND TOTAL		830	1,299	22	76	2,227	157	3,190	41	...	3,388

Sawn or Square Timber.					Miscellaneous.		
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C.ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
4	...	...	...	4	...	...	...
...	...	...	...	...	...	...	290
4	...	...	...	4	...	...	290
4	...	...	...	4	...	...	290
210·5	203·5	...	...	414	29 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342 1,530 trees Chips bags 108	117	15

Miscellaneous—*continued.*		Total Timber.		
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	.....	1	.....
.....	.....	2	81	1
.....	.....	2	82	1
.....	.....	.....	.....	1
.....	.....	·6	91	.....
.....	.....	·6	91	1
.....	.....	·2	1	.....
.....	.....	·2	139	.....
.....	.....	·4	140	.....
.....	.....	8	.....	1
.....	.....	.....	41	1
.....	·290	8	41	2
.....	.....	11	354	3
	161 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342 1,530 trees Chips bags 10	1,228	4,727	73

during the year 1916-1917 and Agency of Exploitation—concluded.

Total Timber—*continued.*		Fuel.					Total.
Right-holders.	Total.	Government.	Purchaser.	Free grantees.	Right-holders.	Total.	Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
... ..	1	35	3,812	...	...	3,847	3,848
.....	84	5	1,247	...	...	1,252	1,336
.....	85	40	5,059	...	...	5,099	5,184
.....	1	33	1,808	...	...	1,841	1,842
.....	91	1	272	...	19	292	383
.....	92	34	2,080	...	19	2,133	2,225
.....	1	41	3,393	...	...	3,434	3,435
.....	139	3	3,398	...	...	3,401	3,540
.....	140	44	6,791	...	...	6,835	6,975
.....	9	163	2,309	...	...	2,472	2,481
.....	42	8	2,251	...	...	2,259	2,301
.....	51	171	4,560	...	...	4,731	4,782
.....	368	289	18,490	...	19	18,798	19,166
76	6,104	4,815	32,768	30	9,184	46,797	52,901 Sandalwood— Kh. mds. lbs. 118 1 1½ Rejected pieces 2,342 1,530 trees Chips bags 108

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1916-1917.*

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.		Rs.		Rs.		Rs.		Rs.		Rs.
State Forests.										
Apta and Tembhurni leaves	.....	...	...	16,943	...	...	...	...	.....	16,943
Bámboos and bundies ...	.....	48	...	23,771	...	470	...	8,311	.....	32,600
Babul Pods ...	.....	...	...	305	...	...	...	...	.....	305
Chilhari bark ...	.....	...	...	417	...	...	...	...	.....	417
Gum ...	.....	...	...	204	...	...	...	...	.....	204
Grass and grazing ...	.....	...	...	97,874	...	...	...	3,26,668	.....	4,24,542
Hirda nuts ...	.....	...	...	1,275	...	...	...	...	.....	1,275
Karvi ...	.....	...	...	2,273	...	...	...	...	.....	2,273
Kusari flowers ...	.....	...	...	37	...	...	...	...	.....	37
Mhowra seed and flowers ...	.....	823	...	1,778	...	...	...	...	.....	2,601
Manure ...	.....	...	...	195	...	...	...	...	.....	195
Manganese (on fees) ...	.....	...	...	1,937	...	...	...	...	.....	1,937
Palm leaves ...	.....	...	...	1,366	...	...	...	...	.....	1,366
Rosha grass ...	.....	...	...	2,199	...	...	...	...	.....	2,199
Stones ...	.....	...	...	1,149	...	...	...	...	.....	1,149
Sali wood ...	.....	...	...	45	...	...	...	...	.....	45
Thorns ...	.....	...	...	1,623	...	...	...	...	.....	1,623
Tarwad Bark ...	.....	...	...	3,511	...	...	...	...	.....	3,511
Miscellaneous ...	.....	...	...	1,114	...	613	...	22,464	.....	24,191
Total, State Forests ...	.....	871	...	1,58,016	...	1,083	...	3,57,443	.....	5,17,413
Leased Forests (Surat).										
A'pta and Tembhurni leaves	.....	...	...	224	...	...	...	...	.....	224
Bamboos ...	.....	...	...	9,578	...	...	...	3,384	.....	12,962
Grass and grazing ...	.....	...	...	628	...	...	...	88,529	.....	89,157
Hirda nuts ...	.....	...	...	2	...	...	...	...	.....	2
Mowhra seed and flowers ...	.....	4,126	...	23	...	...	...	...	.....	4,149
Miscellaneous ...	.....	...	...	2,596	...	...	...	13,776	.....	16,372
Total, Leased Forests ...	.....	4,126	...	13,051	...	...	...	55,689	.....	72,866
Total, Northern Circle ...	.....	4,997	...	1,71,067	...	1,083	...	4,13,132	.....	5,90,279
CENTRAL CIRCLE.										
Hirda and Shikekái ...	.....	5,159	...	11,001	...	...	...	...	.....	16,160
Silk cotton ...	.....	8	...	.....	...	...	...	...	.....	8
Mhowra seed ...	.....	4,938	...	.....	...	...	...	...	.....	4,938
Resha grass ...	.....	...	...	5,469	...	...	...	...	.....	5,469
Leaves, pod bark, etc. ...	.....	...	...	9,299	...	34	...	139	.....	9,472
Fruits ...	.....	...	...	2,593	...	...	...	2,313	.....	4,906
Earth, stone, murrum, etc. ...	.....	284	...	1,527	...	767	...	...	.....	2,578
Grass and grazing ...	.....	...	...	2,79,661	...	...	...	28,481	.....	3,08,142
Bamboos ...	.....	1	...	11,086	...	38	...	...	.....	11,125
Tarwad ...	.....	...	...	3,657	...	...	...	...	.....	3,657
Miscellaneous ...	.....	...	...	4,161	...	13	...	89	.....	4,263
Total, Central Circle ...	.....	10,390	...	3,28,454	...	852	...	31,022	.....	3,70,718
SOUTHERN CIRCLE.										
Bamboos ...	(*a*) 96,584	(*a*) 11,712	5,628,731	65,484	84,220	398	...	...	.....	77,594
Grass and grazing ...	...	294	...	75,740	...	2,245	...	...	...	78,279
Harda, Shikgekái, Cinnamon, Honey, Wax, Nuxvomica, Ramphal and Rampatri.	.....	...	...	21,780	...	...	...	...	.....	22,077
Quarrying fees ...	.....	(*b*) 297	...	6,027	...	703	...	...	.....	7,630
Tapping fees ...	.....	...	...	1,367	...	...	...	...	.....	1,367
Tali palm trees ...	...	...	...	3,168	...	1,104	...	...	.....	4,272
Baini trees ...	.....	...	...	291	...	...	...	...	.....	291
Supari trees ...	.....	...	...	1	...	...	...	...	.....	1
Tali palm leaves ...	.....	...	...	641	...	...	...	...	.....	641
Shindoli leaves ...	.....	...	...	184	...	...	...	...	.....	184
Tenuri leaves ...	.....	...	...	1,835	...	...	...	...	.....	1,835
Muttal leaves. ...	.....	...	...	1	...	...	...	...	.....	1

(*a*) Of this Rs. 10,229 is the estimated value of 73,690 bamboos exploited for war supplies from Kánara, N. D. and W. D.
(*b*) Estimated value of 7 khandis 8½ maunds harda departmentally collected in Kánara, E. D.

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1916-1917*—continued.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*continued.*		Rs.		Rs.		Rs.		Rs.		Rs.
Soppu (green leaves for manure).	...	...	.....	9	...	...	...	...	.....	9
Mangoes, Jack fruits and Cashew fruits and leaves.	...	...	.....	3	...	61	...	...	.....	64
Bori fruits	...	...	.....	15	...	...	...	...	.....	15
Tamarind fruits	...	...	.....	23	...	...	...	...	.....	23
Undi seeds	...	...	.....	27	...	...	...	...	.....	27
Hulgal seed	...	...	.....	1,314	...	...	...	...	.....	1,314
Divi-divi seed	...	...	.....	70	...	...	...	...	.....	70
Karanja seed	...	60	.....	249	...	...	...	...	.....	309
Bábul pods	...	...	.....	397	...	...	...	...	.....	397
Waivdung	...	...	.....	25	...	...	...	...	.....	25
Dagadful	...	...	.....	132	...	...	...	...	.....	132
Soap nut	...	...	.....	78	...	...	...	...	.....	78
Chandra pit	...	...	.....	155	...	...	...	...	.....	155
Lantana	...	...	.....	92	...	...	...	...	.....	92
Prickly pear	...	...	.....	35	...	...	...	...	.....	35
Broom grass	...	...	.....	422	...	...	...	...	.....	422
Stakes	...	...	.....	98	...	27	...	...	.....	125
Creepers	...	...	.....	32	...	4	...	...	.....	36
Thorns	...	...	.....	303	...	...	...	...	.....	303
Gum	...	202	.....	100	...	...	...	...	.....	302
Bandurbi	...	...	.....	706	...	...	...	...	.....	706
Tarwad bark	...	...	.....	13,235	...	...	...	...	.....	13,235
Shige bark	...	...	.....	99	...	...	...	...	.....	99
Shembi bark	...	...	.....	29	...	...	...	...	.....	29
Canes	...	...	.....	668	...	2	...	...	.....	670
Skins and horns	...	...	.....	7	...	...	...	...	.....	7
Miscellaneous	...	...	.....	47	...	...	...	...	.....	47
Total, Southern Circle	...	12,565	.....	1,95,789	...	4,514	...	...	.....	2,12,898*
SIND CIRCLE.										
Sukkur. Vegetables, fruit and flowers.		M. s. 98	.....	.....	...	...	...	...	.....	98
Rahuja garden contract.	...	190	.....	.....	...	...	...	...	.....	190
Babul seed	6 0	6	.....	.....	...	...	...	...	.....	6
Juari grass	3 cart loads.	4	.....	.....	...	...	...	...	.....	4
Sur-reed	...	...	Contract.	1,727	...	...	...	...	.....	1,727
Lopping of Bahán Babul and Kandi branches.	...	...	645	33	...	...	...	...	.....	33
Babul pod contract	...	...	Contract.	1,310	...	...	...	...	.....	1,310
Kanh grass	...	...	217 bundles.	14	...	...	...	...	.....	14
Dubh grass	...	...	303 bundles.	19	...	...	...	...	.....	19
Pabun and Bih contract.	...	...	Contract.	450	...	...	...	...	.....	450
Date fruit	...	...	.....	3	...	...	...	...	.....	3
Mango fruit of Dickenson Forest.	...	...	Contract.	310	...	...	...	...	.....	310
Value of seed recovered from Maldars.	...	...	89 maunds.	89	...	...	...	...	.....	89
Bark	...	...	.....	5	...	...	...	...	.....	5
Sur grass	...	...	2 cart loads.	1	...	...	...	...	.....	1
Chabar grass	...	...	168 head loads	11	...	...	...	...	.....	11
Jaw brushwood	...	...	39 head loads.	3	20 loads.	1	...	...	.....	4
Do.	...	...	20 cart loads.	15	...	...	...	...	.....	15
Sar reed	...	...	3 head loads.	2	...	...	...	...	.....	2
Babul leaves	...	...	24 seers.	1	...	...	...	...	.....	1
Value of after growth	...	...	.....	10	...	...	...	...	.....	10
Grazing	...	...	.....	13,748	...	392	...	2,592	.....	16,732
Total	...	298	.....	17,751	...	393	...	2,592	.....	21,034
Lárkána. Babul pods	...	...	Contract.	1,815	...	...	...	...	.....	1,815
Kana Sur	...	...	Do.	870	...	...	...	...	.....	870
Kanh grass	...	...	Do.	40	...	...	...	...	.....	40
Kanh grass bundles	...	...	.....	.....	150	9	...	...	.....	9
Ber fruit	...	...	.....	12	...	...	...	...	.....	12
Date fruit	...	...	.....	4	...	...	...	...	.....	4
Manure	...	...	100 bales.	6	...	...	...	...	100 bales.	6
Babul seed	...	...	20 mds.	40	...	...	...	...	20 mds.	40
Kandi branches	...	...	Nos. 128.	8	...	...	...	...	128 Nos.	8
Grazing	...	...	.....	6,991	...	317	...	809	.....	8,117
Total	...	...	.....	9,786	...	326	...	809	.....	10,921

* This is exclusive of Rs. 46,482 on account of Sandalwood shown under Government Agency and Rs. 15,000, Rs. 1,80,000 and Rs. 3,00,387 on account of Bamboos, Minor Forest Produce and Grazing shown under Privilege holders in the statement in Chapter II, Section V (*c*) outturn and sources of forest produce.

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1916-1917*—concluded.

	Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
		By Government Agency.		By purchasers.		By free-grantees.		By right-holders.		Total.	
		Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	1	2	3	4	5	6	7	8	9	10	11
	SIND CIRCLE—*continued.*	Mds. s.	Rs.		Rs.		Rs.		Rs.	Mds. s.	Rs.
Hyderabad.	Vegetables of Miani garden bungalow.	...	9	.....	.....	...	...	...	...	.....	9
	Fruit of Miani Bungalow garden.	...	10	.....	.....	...	...	...	...	.....	10
	Juari produced in Bungalow garden.	1 20	4	.....	.....	...	...	...	...	.....	4
	Karbi grass in Bungalow garden.	100 bundles.	10	.....	.....	...	...	...	...	.....	10
	Fruit of Miani Mango garden.	Contract.	165	.....	.....	...	...	...	...	.....	165
	Do. Kathri Devi garden.	Do.	251	.....	.....	...	...	...	...	.....	251
	Babul pods	...	...	Contract.	12,447	...	...	...	...	.....	12,447
	Lac	...	...	Do.	10,575	...	...	...	...	.....	10,575
	Kanh and Sur grass	...	...	Do.	521	...	...	...	...	.....	521
	Jaw brushwood	...	...	166 bundles.	10	...	...	...	...	.....	10
	Lopping of babul, and kandi branches.	...	...	Nos. 3,193	271	...	...	...	...	.....	271
	Grazing	...	...	.....	9,994	...	1,339	...	99	.....	11,432
	Total	...	449	.....	33,818	...	1,339	...	99	.....	35,705
Jernack.	Babul and kandi pods	...	1,660	Contract.	1,875	...	...	...	...	.....	3,535
	Sur and Kanh grass	...	...	.....	95	...	...	...	...	.....	95
	Lac contract	...	...	Contract.	6,525	...	...	...	...	.....	6,525
	Mango fruit	...	...	.....	3	...	...	...	...	.....	3
	Sale of kamo creeper	...	...	.....	40	...	...	...	...	.....	40
	Babul seed	75 0	56	.....	.....	...	...	...	...	.....	56
	Grazing	...	...	.....	7,217	...	1,094	...	359	.....	8,670
	Total	...	1,716	.....	15,755	...	1,094	...	359	.....	18,924
	Total, Sind Circle	...	2,463	.....	77,110	...	3,152	...	3,859	.....	86,584
	GRAND TOTAL	...	30,415	.....	7,72,420	...	9,631	...	4,48,013	.....	12,60,479

FORM No. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1916-1917.*

Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
NORTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Panch Mahâls	...	2,807	2,807	2,807	...
Surat	21,218	66,347	87,565	53,363	34,202
North Thâna	575	31,483	32,058	17,115	14,943
West Thâna	10	3,105	3,115	2,308	807
East Thâna	...	5,276	5,276	5,276	...
North Násik	...	...	...	...	...
South Násik Sub-division ...	7,286	215	7,501	7,501	...
Total, Timber ...	29,089	1,09,233	138,322	88,370	49,952
Fuel.					
Panch Mahâls	...	7,960	7,960	7,960	...
Surat	12,150	12,637	24,787	18,523	6,264
North Thâna	103	16,160	16,263	13,960	2,303
West Thâna	...	9,040	9,040	9,040	...
East Thâna	...	4,360	4,360	4,360	...
West Násik Sub-division ...	560	17,712	18,272	2,592	15,680
Total, Fuel ...	12,813	67,869	80,682	56,435	24,247
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Panch Mahâls	...	60	60	...	60
Surat	5,258	1,908	7,166	5,261	1,905
West Thâna	...	1,152	1,152	...	1,152
East Thâna	...	1,587	1,587	46	1,541
Total, Minor Forest produce ..	5,258	4,707	9,965	5,307	4,658
Total, Northern Circle ...	C. ft. 41,902 + Rs. 5,258	C. ft. 177,102 + Rs. 4,707	C. ft. 219,004 + Rs. 9,965	C. ft. 144,805 + Rs. 5,307	C. ft. 74,199 + Rs. 4,658
CENTRAL CIRCLE.					
Timber.					
East Khándesh	1,285	291	1,526	1,203	323
North Khándesh	...	426	426	426	...
Kolaba	173	246	419	303	116
Poona	56	7,161	7,217	6,894	323
Sátára	...	2,684	2,684	2,684	...
Total ..	1,464	10,808	12,272	11,510	762
Firewood.					
East Khándesh	80	24,570	24,650	24,650	29
North Khándesh	29	340	369	340	...
Kolaba	4,951	60,946	65,897	55,380	10,517
Poona	8,088	129,964	138,052	127,212	10,840
Sátára	35,250	127,100	162,350	129,633	32,717
Total ...	48,398	342,920	391,318	337,215	54,103
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
West Khándesh	...	2,182	2,182	2,182	...
North Khándesh	...	2,764	2,764	2,764	...
Kolaba	...	16	16	16	...
Poona	...	5,245	5,245	5,245	...
Sátara	...	185	185	182	3
Total ...	...	10,392	10,392	10,389	3
Famine Fodder (arrears from 1915-16).					
West Khándesh	...	64,725	64,725	64,725	...
Kolaba	...	1,045	1,045	1,045	...
Total ...	...	65,770	65,770	65,770	...
Total, Central Circle ...	C. ft. 49,862 + Rs. ...	C. ft. 353,728 + Rs. 76,162	C. ft. 403,590 + Rs. 76,162	C. ft. 348,725 + Rs. 76,159	C. ft. 54,865 + Rs. 3

Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Kánara, Northern Division—					
Teak	358,481	(a)280,784	637,265	397,573	239,692
Blackwood	55,416	14,256	69,672	14,727	54,945
Junglewood	43,870	68,910	112,780	59,244	53,536
Total ...	455,767	363,950	819,717	471,544	348,173
Kánara, Eastern Division—					
Teak	105,930	(a)162,370	268,300	180,174	88,126
Blackwood	1,161	1,687	2,848	726	2,122
Junglewood	8,847	46,841	55,688	19,069	36,619
Total ...	115,938	210,898	326,836	199,969	126,867
Kánara, Central Division—					
Teak	62,010	116,539	178,548	107,174	71,374
Blackwood	3,153	7,260	10,413	5,660	4,753
Junglewood	73,632	136,975	210,607	123,112	87,395
Total ...	138,795	260,773	399,568	296,046	103,522
Kánara, Southern Division—					
Teak	6,263	...	6,263	1,718	4,545
Junglewood	6,581	327	6,908	2,485	4,423
Total ...	12,844	327	13,171	4,203	8,968
Kánara, Western Division—					
Teak	1,593	76,250	77,333	60,348	17,485
Blackwood	251	1,321	1,572	747	825
Junglewood	9,069	88,595	97,664	27,881	69,783
Total ...	10,903	166,166	177,069	88,976	88,093
Belgaum Division—					
Teak	728	13,816	14,544	7,395	7,149
Blackwood	115	1,292	1,407	600	807
Junglewood	678	79,141	79,819	72,741	7,078
Total ...	1,521	94,249	95,770	80,736	15,034
Dhárwár—Bijápur Division—					
Teak	(a) 3,976	1,274	1,274	1,274	...
Total ...	(a) 3,976	1,274	1,274	1,274	...
Total, Southern Circle—					
Teak	536,971	(a)651,032	1,184,027	815,656	368,371
Blackwood	60,096	25,816	85,912	22,460	63,452
Junglewood	142,677	420,789	563,466	304,632	258,834
Total Timber ...	739,744	(a) 1,097,637 —3,976	1,833,405	1,142,748	690,657
Fuel.					
Kánara, Eastern Division ...	100	...	100	100	...
Kánara, Southern do. ...	40,367	241,049	281,416	132,456	148,960
Kánara, Western do. ...	285,333	920,353	1,185,686	985,795	199,891
Belgaum Division	472,117	2,948,028	3,420,145	2,650,568	769,577
Dhárwár-Bijápur Division ...	2,341	5,584	7,925	7,470	475
Total ...	780,258	4,115,014	4,895,272	3,776,389	1,118,903

(a) 3,976 c. ft. teak of Dhárwár-Bijápur being transferred partly to Kánara, Northern and partly to Kánara, Eastern, the material stands included in the figures of those Divisions.

FORM No. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1916-1917*—concluded.

Name of Division or Range	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE —*continued.*	Rs.	Rs.	Rs.	Rs.	Rs.
Bamboos.					
Kánara, Northern Division ...Value.	...	2,156	2,156	...	2,156
Kánara, Eastern Division ... ,,	...	299	299	299	...
Kánara, Western Division ... ,,	...	8,638	8,638	565	8,073
Belgaum Division ... ,,	...	619	619	619	...
Total ...Value.	...	11,712	11,712	1,483	10,229
Sandalwood.					
Kánara, Northern Division ...Value.	...	4,124	4,124	4,124	...
Kánara, Eastern Division ... ,,	...	12,000	12,000	12,000	...
Kánara, Central Division ... ,,	...	(c) 6,719	6,719	6,719	...
Kánara, Southern Division ... ,,	5	4,961	4,966	4,951	15
Belgaum Division ... ,,	2,000	6,121	8,121	7,716	405
Dhárwár-Bijápur Division ... ,,	...	11,072	11,072	10,972	100
Total ...Value.	2,005	44,997	47,002	46,482	520
Minor Forest Produce.					
Kánara, Eastern Division ...Value.	...	297	297	...	(b) 297
Belgaum Division ... ,,	510	126	636	(b) 620	16
Dhárwár-Bijápur Division ... ,,	...	202	202	202	...
Total ...Value.	510	625	1,135	822	313
Drift and waif wood and confiscated Forest Produce.					
Kánara, Northern Division ...Value.	...	5	5	5	...
Kánara, Eastern Division ... ,,	...	1	1	1	...
Kánara, Central Division ... ,,	(c) 22	3	3	3	...
Kánara, Southern Division ... ,,	...	65	65	65	...
Kánara, Western Division ... ,,	...	71	71	71	...
Belgaum Division ... ,,	70	9	79	79	...
Dhárwár-Bijápur Division ... ,,	...	27	27	27	...
Ratnágiri Division ... ,,	...	3	3	3	...
Total ...	92	184	254	254	...
Total, Southern Circle ...	C. ft. 1,520,002 + Rs. 2,607	C. ft. 5,203,675 + Rs. 57,496	C. ft. 6,723,677 + Rs. 60,103	C. ft. 4,919,117 + Rs. 49,041	C. ft. 1,809,560 + Rs. 11,062

Name of Division or Range.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SIND CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Sukkur	759	1,566	2,325	1,952	373
Lárkána	93	640	733	640	93
Hyderabad	128	414	542	300	242
Jerruck	.....	8,498	8,498	5,855	2,643
Total ...	980	12,118	12,098	8,747	3,351
Fuel.					
Sukkur	500	39,797	40,357	40,074	283
Lárkána	22,300	33,630	55,900	50,900	5,000
Hyderabad	25,822	44,381	70,203	33,235	36,968
Jerruck	2,060	171,546	173,546	160,146	13,400
Total ...	50,682	289,384	340,066	284,415	55,651
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Sukkur ...Value.	312	380	692	473	219
Lárkána ... ,,	240	1,034	1,274	1,151	123
Hyderabad ... ,,	6	1,266	1,272	1,240	32
Jerruck ... ,,	140	1,282	1,422	1,242	180
Total ...Value	698	3,962	4,660	4,106	554
Total, Sind Circle ...	C. ft. 51,662 + Rs. 698	C. ft. 300,502 + Rs. 3,962	C. ft. 352,164 + Rs. 4,660	C. ft. 293,162 + Rs. 4,106	C. ft. 59,002 + Rs. 554
GRAND TOTAL ...	C. ft. 1,663,428 + Rs. 8,563	C. ft. 6,040, 67 + Rs. 1,42,327	C. ft. 7,703,535 + Rs. 1,50,890	C. ft. 5,705,909 + Rs. 1,34,613	C. ft. 1,997,626 + Rs. 16,277

(b) Includes Rs. 206, value of grass written off.

(c) Rs. 22 stands included in Rs. 6,719.

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1916-1917.*

Description of Timber and other Forest Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
			Rs.			Rs.	Rs.	Rs.	
NORTHERN CIRCLE.									
Timber.									
Surat	...	21,218	24,095	...	34,202	43,778	...	...	
North Thana	...	575	175	...	14,943	2,500	...	...	
West Thana	...	10	25	...	807	1,614	...	...	
South Nasik	...	7,286	200	...	...	...	...	...	
Total, Timber ...	...	29,089	24,495	...	49,952	47,892	23,397	...	
Fuel.									
Surat	...	12,150	1,556	...	6,264	1,279	...	...	
North Thana	...	103	50	...	2,303	230	...	...	
South Nasik	...	560	42	...	15,680	436	...	...	
Total, Fuel ...	...	12,813	1,648	...	24,247	1,945	297	...	
Minor Forest Produce.									
Panch Mahals	...	...	...	...	...	60	...	...	
Surat	...	...	5,258	...	...	1,905	...	...	
West Thana	...	...	..	...	...	1,152	...	...	
East Thana	...	...	...	...	...	1,541	...	...	
Total, Minor Forest Produce ...	...	...	5,258	...	...	4,658	...	...	
Total, Northern Circle ...	...	...	31,401	...	...	54,495	23,094	...	
CENTRAL CIRCLE.									
Timber.									
East Khándesh	1,297	1,235	356	241	323	83	...	...	
Kolába	57	173	63	16	116	36	...	...	
Poona	25	56	3	143	323	33	...	...	
Total, Timber ...	1,379	1,464	422	400	762	152	...	270	
Firewood.									
East Khándesh	4	80	12	...	...	...	...	...	
North Khándesh	1	29	10	...	29	10	...	...	
Kolába	...	4,951	1,818	...	10,517	1,340	...	...	
Poona	...	8,088	505	...	10,840	677	...	...	
Sátára	...	35,250	2,150	...	32,717	1,612	...	...	
Total, Firewood ...	5	48,398	4,495	...	54,103	3,639	...	856	
Mhowra.									
		Lbs.			Lbs.				
West Khándesh	...	7,073	300	...	191,567	4,789	...	...	
North Khándesh	...	15,798	300	...	39,717	745	...	...	
Total, Mhowra ...	...	22,871	600	...	231,284	5,534	4,934	...	
Seeds.									
	Kh.	Mds.	Lbs.	Kh.	Mds.	Lbs.			
East Khándesh	3	19	27	1	20	18	...	...	
Poona	16	18	26	7	1	0	...	...	
Sátára	...	...	25	7	21	14	...	...	
Total, Seeds ..	21	6	21	16	15	4	...	...	
Total, Central Circle ...	...	...	5,517	...	...	9,325	3,808	...	

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1916-1917*—concluded.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Timber.									
Teak	131,982	536,971	8,70,167	140,891	368,371	7,75,611	...	94,556	
Blackwood	4,051	60,096	43,942	5,366	63,452	56,604	12,662	...	
Junglewood	5,606	142,677	1,17,949	40,560	258,834	2,69,038	1,51,089	...	
Total, Timber ...	141,639	739,744	10,32,058	186,817	690,657	11,01,253	69,195	...	
Fuel	...	7,80,258	50,985	...	1,118,903	71,855	20,870	...	
Bamboos ... ... Value.	...	...	...	...	...	10,229	10,229	...	
Sandalwood ... ... Value.	...	...	2,005	...	...	520	...	1,485	
Minor Forest Produce ... Value.	...	...	510	...	...	313	...	197	
Confiscated Forest Produce ...	...	...	92	...	...	...	...	92	
Total, Southern Circle ...	...	...	10,85,650	...	...	11,84,170	98,520	...	
SIND CIRCLE.									
Timber.									
Babul logs	21	107	26	28	108	27	...	...	
Kandi logs	71	213	40	65	177	33	...	...	
Asri logs	76	192	24	2	4	1	...	...	
Jaw rafters	340	181	42	513	266	60	...	...	
Bahan posts	15	15	4	46	46	12	...	...	
Kandi cart axles	1	1	...	...	...	...	...	...	
Babul cart axles	7	7	2	4	4	1	...	...	
Kandi stakes	4	2	...	...	...	...	...	...	
Bahan logs	26	78	19	13	39	9	...	...	
Bahan Varas	1	3	1	2	6	2	...	...	
Lai props	8	24	3	...	...	...	...	...	
Kandi props	26	78	15	...	...	...	...	...	
Lai Manghas	80	40	2	80	40	1	...	...	
Kandi Varas	4	12	3	3	9	3	...	...	
Lai Varas	9	27	3	...	...	...	...	...	
Timber pieces	...	...	...	87	2,643	348			
Babul props	...	...	...	3	9	3	...	...	
Total, Timber ...	689	980	184	846	3,351	500	316	...	
Firewood and Charcoal.	Mds.			Mds.					
Loco-fuel	...	49,805	1,666	...	47,680	1,344	...	...	
Firewood	130	877	25	1,181	7,971	76	...	...	
Total, Fuel ...	130	50,682	1,691	1,181	55,651	1,420	...	271	
Minor Forest Produce.	Mds.								
Babul, Kandi and other seeds ...	934	...	697	688	...	554	...	...	
Jam brushwood	20	...	1	...	...	...	...	...	
Total ...	954	...	698	688	...	554	...	144	
Total, Sind Circle ...	...	...	2,573	...	...	2,474	...	99	
GRAND TOTAL ...	...	...	11,25,141	...	...	12,50,464	1,25,323	...	

FORM No. 23.—*Abstract showing the value of Live and Dead Stock for the year 1916-17.*

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Bullocks	3	294	3	294	...	...	
Dead Stock.							
Buildings	284	2,97,153	289	3,14,510	17,357	...	
Copying machines	8	...	8	...	...	...	
Cyclostyles	7	...	7	...	...	...	
Carts	7	133	7	133	...	...	
Hay presses	111	...	111	...	...	...	
Steel wire ropes	12	...	12	...	...	...	
Stores, tools, plant and office furniture	...	63,987	...	65,715	1,728	...	
Typewriters, Empire	3	600	3	600	...	...	
Remington Typewriter	6	...	6	...	...	...	
Tents and rahutis	34	4,400	34	4,400	...	...	
Total, Dead Stock ...	472	3,66,273	477	3,85,358	19,085	...	
TOTAL, NORTHERN CIRCLE ...	475	3,66,567	480	3,85,652	19,085	...	
CENTRAL CIRCLE.							
Dead Stock.			*Live Stock*—Nil.				
Buildings	147	1,71,724	148	1,71,924	200	...	
Tents	8	2,138	8	2,135	...	3	
Rahutis (Kabul pal fan)	27	2,172	27	2,170	...	2	
Tools, plant and office furniture ...	...	34,598	...	34,339	...	259	
Remington Typewriters	9	...	7*	...	...	...	* Correct figure given.
Empire Do.	2	...	4*	...	...	...	
Copying machines	5	...	5	...	...	...	
Cyclostyles	5	...	5	...	...	...	
Boat with fittings	1	1,371	1	1,371	...	...	
Boon furniture	...	700	...	650	...	50	
Total, Dead Stock ...	204	2,12,703	205	2,12,589	200	314	
Total, Central Circle ...	204	2,12,703	205	2,12,589	...	114	

FORM No. 23.—*Abstract showing the value of the Live and Dead Stock for the year 1916-17*—concluded.

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
SOUTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Buffaloes and bullocks ..	57	2,952	60	2,945	...	7	
Total, Live Stock ...	57	2,952	60	2,945	...	7	
Dead Stock.							
Buildings	392	3,02,314	365	2,96,334	...	5,980	Value of Saw-mills and other machinery Rs. 42,160 hitherto wrongly included in (a) is now separately shown, *vide* items marked (b).
Tents	9	2,212	9	1,909	...	303	
Rahutis	22	1,838	22	1,838	...	...	
Tools, plant and office furniture ...	...	(a) 47,922	...	46,343	...	1,579	
Typewriters Remington ...	1	...	1	...	...	...	
Do. Empire	2	...	2	...	...	...	
Do. Hammond ...	7	...	7	...	...	...	
Cyclostyles	6	...	8	...	...	...	
Carts	38	2,162	39	2,068	...	94	
Guns	4	133	4	133	...	...	
Bicycle	1	129	3	379	250	...	(c) 2 Saw-mills in Kanara, N. D.
Iron safes	4 6	535 (b) 140	10	675	...	...	
Monorail materials	...	25,382	...	25,382	...	...	
Saw-mills (Steam power) ...	2	(b) 40,770	(c) 2 (d) 3	38,731 46,932	46,932	2,039	(d) Saw-mills newly purchased—
Distillation Plant	...	...	1	910	910	...	1 for Kanara, E. D.
Windlass	1	(b) 1,200	1	1,140	...	60	1 for Kanara, C. D.
Crab Winch	1	(b) 50	1	47	...	3	1 for Kanara, W. D.
Total, Dead Stock ...	496	4,24,787	478	4,62,821	48,092	10,058	
Total, Southern Circle ...	553	4,27,739	538	4,65,766	38,027	...	
SIND CIRCLE.							
Live Stock.							
Bullocks	11	246	11	246	...	...	
Camels	32	1,160	31	1,360	...	...	
Total, Live Stock ...	43	1,406	42	1,606	200	...	
Dead Stock.							
Buildings	96	47,764	92	47,743	...	...	
Tents	14	2,954	14	2,954	...	...	
Stores, Mathematical ...	643	5,356	724	5,785	...	...	
Tools, plant and office furniture ..	2,533	13,896	2,647	14,047	...	...	
Remington Typewriters ...	5	...	6	...	...	...	
Empire Typewriters	1	...	...	...	...	...	
Copying machine	1	...	1	...	...	...	
Iron safes	1	201	1	201	...	...	
Miscellaneous	522	1,403	544	1,670	...	...	
Total, Dead Stock ...	3,816	71,564	4,029	72,400	836	...	
Total, Sind Circle ...	3,859	72,970	4,071	74,006	1,036	...	
GRAND TOTAL ..	5,091	10,79,979	5,294	11,38,013	58,034	...	

FORM No. 24.

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	North Thána Division.	West Thána Division.	East Thána Division.	North Násik Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
NORTHERN CIRCLE.					
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	5,275 9 0	203 5 0	1,319 6 0	.....
b. Firewood and charcoal... ...	.....	187 12 0	719 6 0	109 1 0	7 12 0
c. Bamboos	.....	2 8 0	.....	45 13 4	.....
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	.....	.....	.....	.....
f. Famine fodder ...	.....	.....	.....	.....	.....
Total, I ...	.....	5,465 13 0	922 11 0	1,474 4 4	7 12 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	7,76,773 2 3	3,32,551 13 10	2,73,751 7 2	10,906 3 0
b. Firewood and charcoal... ...	327 6 0	603 7 10	2,236 14 6	174 10 6	5,456 15 0
c. Bamboos	0 12 0	10,623 11 0	2,268 0 6	1,046 13 6	124 0 0
d. Grazing and fodder grass ...	72 10 0	6,056 12 0	2,690 3 0	3,973 15 10	40,262 2 0
e. Other minor produce	28 10 0	301 10 0	6,700 11 8	4,124 6 5	6,501 5 3
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees	.....	.....	.....	.....	.....
Total, II ...	429 6 0	7,94,358 11 1	3,45,447 11 6	2,83,051 5 5	63,253 9 3
III.—Drift and Waif Wood and Confiscated Forest Produce...	3 0 0	4 7 6	22 3 3	.....	158 11 9
Total, III ...	3 0 0	4 7 6	22 3 3	.....	158 11 9
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	1,246 10 0	10 8 2	.....
Total, IV ...	.....	.....	1,246 10 0	10 8 2	.....
V.—Miscellaneous—					
a. Fines and forfeitures	.....	463 12 5	202 9 0	1,330 5 0	328 0 0
b. Refunds	.....	244 1 0	149 13 2	42 0 2	.....
c. Other sources ...	906 10 0	3,882 0 6	3,182 11 4	3,270 6 0	4,679 9 0
Total, V ...	906 10 0	4,589 13 11	3,535 1 6	4,642 11 2	5,007 9 0
Grand Total, Revenue.	1,339 0 0	8,04,418 13 6	3,51,174 5 3	2,89,208 13 1	68,427 10 0
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	3,677 10 3	827 4 8	175 6 0	.....
b. Firewood and charcoal... ...	.....	6 15 0	170 6 0	.....	.....
c. Bamboos	.....	1,113 10 6	.....	116 3 6	.....
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	.....	.....	.....	0 10 0
Total, A-I ...	.....	4,798 3 9	997 10 8	291 9 6	0 10 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	83 8 0	7,027 9 9	4,167 9 7	3,481 11 4	215 13 10
Total, A-II ...	86 8 0	7,027 9 9	4,167 9 7	3,481 11 4	215 13 10
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	0 10 0	1 15 0	.....
Total, A-III ...	.....	.....	0 10 0	1 15 0	.....
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1916-1917.

South Násik Division.	Násik Sub-Division.	Surat Division.	Panch Mahals Division.	Working Plans Division.	Direction Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
934 10 8	.....	1,16,093 3 4	1,712 4 0	.....	.....	1,25,538 6 0
101 8 9	.....	1,167 3 7	.....	.....	.....	2,292 11 4
.....	.....	.....	.....	.....	.....	48 5 4
270 0 0	70 0 0	30 0 0	.....	.....	.....	370 0 0
.....	.....	4,948 11 9	.....	.....	641 14 0	4,948 11 9
.....	.....	.....	.....	.....	.....	641 14 0
1,306 3 5	70 0 0	1,22,239 2 8	1,712 4 0	.....	641 14 0	1,33,840 0 5
1,05,304 15 0	1 5 0	59,890 15 7	1,27,602 7 6	.....	.....	16,86,782 5 4
2,119 9 6	785 12 0	29 8 0	603 13 3	.....	.....	12,333 0 7
6,805 1 9	61 4 0	10,382 12 11	1,535 12 11	.....	.....	33,348 4 7
34,578 12 9	396 15 0	2,335 1 0	8,134 15 6	.....	.....	98,501 7 1
7,556 10 6	1,061 15 6	3,796 7 9	10,131 5 7	.....	.....	39,216 2 8
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
1,56,365 1 6	2,307 3 6	76,934 13 3	1,48,008 6 9	.....	.....	18,70,186 4 3
169 10 9	24 0 6	13 12 0	6 1 0	.....	.....	401 14 9
169 10 9	24 0 6	13 12 0	6 1 0	.....	.....	401 14 9
.....	.....	.....	.....	.....	.....	.....
.....	.....	56 0 3	.....	.....	.....	1,313 2 5
.....	.....	56 0 3	.....	.....	.....	1,313 2 5
1,203 4 0	74 6 0	462 5 3	232 3 6	.....	.....	4,296 13 2
28 6 8	18 12 0	380 14 5	5 11 8	.....	.....	869 11 1
2,364 3 5	1,562 10 2	1,570 7 5	8,094 15 0	.....	.....	29,513 8 10
3,595 14 1	1,655 12 2	2,413 11 1	8,332 14 2	.....	.....	34,680 1 1
1,61,436 13 9	4,057 0 2	2,01,657 7 3	1,58,059 9 11	.....	641 14 0	20,40,421 6 11
23 0 0	.....	44,230 12 1	681 1 0	.....	.....	49,620 2 0
242 2 4	.....	630 6 0	.....	.....	.....	1,049 13 4
.....	.....	74 2 0	.....	.....	.....	1,301 0 0
.....	.....	.....	.....	.....	.....	.....
410 0 0	.....	4,134 11 0	21 2 2	.....	.....	4,566 7 0
680 2 4	.....	49,089 15 1	702 3 0	.....	.....	56,540 6 4
3 12 0	4 5 9	4,628 10 9	1,902 0 11	.....	.....	24,185 4 0
3 12 0	4 5 9	4,628 10 9	1,902 0 11	.....	.....	24,185 4 0
.....	.....	4 0 0	0 8 0	.....	.....	11 7 0
.....	.....	4 0 0	0 8 0	.....	.....	11 7 0
.....	.....	.....	.....	.....	.....	.....
.....	.....	8 8 0	.....	.....	.....	8 8 0
.....	.....	8 8 0	.....	.....	.....	8 8 0

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Heads.	Direction.	North Thána Division.	West Thána Division.	East Thána Division.	North Násik Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	306 8 9	3,875 4 4
Total, A-V ...	.....	.....	.....	306 8 9	3,875 4 4
VI.—Live-Stock, Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	
c. Purchase of stores, tools and plant ...	545 10 1	55 12 0	55 4 0	148 9 0	.....
Total, A-VI ...	545 10 1	55 12 0	55 4 0	148 9 0	.....
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	3,727 7 2	1,007 13 9	2,339 9 9	.....
b. Buildings	.....	13,418 0 11	350 13 3	268 0 9	.....
c. Other works	.....	404 14 6	43 12 0	43 2 0	.....
Total, A-VII ...	.....	17,550 6 7	1,402 7 0	2,250 12 6	.....
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation	.....	461 5 0	504 12 3	331 1 3	109 0 6
b. Cost of Forest Settlements and Compensation for land and rights	.....	20 12 7	10 8 0	17 0 3	.....
c. Surveys	.....	.....	.....	.....	.....
d. Working-plans ...	.....	103 14 1	140 0 9	489 15 6	44 8 3
e. Sowing and planting...	96 0 0	2,783 7 2	804 12 6	89 9 6	108 5 0
f. Protection from fire...	150 0 0	2,863 12 0	3,6.9 5 6	4,735 6 11	246 7 0
g. Other works	.....	20 0 0	.....	950 2 6	.....
Total, A-VIII ...	246 0 0	6,333 2 10	5,060 7 0	6,613 3 11	508 4 9
IX.—Miscellaneous—					
a. Law charges	.....	.....	.....	.....	.....
b. Other charges ...	841 13 6	2,344 3 1	2,501 9 5	2,783 12 0	1,284 5 5
Total, A-IX ...	841 13 6	2,344 3 1	2,501 9 5	2,788 12 0	1,284 5 5
TOTAL, A.—CONSERVANCY AND WORKS	1,719 15 7	38,110 0 0	14,194 9 8	16,183 2 0	5,884 6 4
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators	18,000 0 0	.....	.....	.....	.....
b. Superior Officers ...	1,070 11 0	16,429 1 11	11,099 4 2	15,868 6 5	5,429 5 4
c. Subordinate Forest and Depôt Establishments	685 13 4	24,794 0 3	29,850 10 3	28,272 11 1	15,120 14 4
d. Office Establishments.	7,628 9 4	5,889 4 8	7,194 7 6	6,120 6 9	4,072 15 3
e. Deputation and Special Allowances...	.....	68 11 11	946 4 11	1,535 1 3	2 15 3
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators	.....	.....	.....	.....	.....
3. Assistant Conservators	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....
Total, B-I ..	27,385 1 8	47,181 2 9	49,090 10 10	51,796 9 6	24,626 2 2
II.—Travelling Allowances—					
a. Conservators	2,554 5 10	.....	.....	.....	.....
b. Superior Officers ...	9 10 10	2,018 6 0	1,863 4 9	2,536 8 0	1,233 4 0
c. Subordinate Forest and Depôt Establishments	35 0 0	2,828 4 4	2,958 0 1	2,499 7 8	1,587 3 2
d. Office Establishments.	843 0 10	818 15 8	841 0 0	612 4 6	303 13 8
e. Forest School (Dehra-Dun)	102 8 9	81 12 4	.....	143 0 11	.....
f. Plague allowances ...	33 1 0	25 0 0	28 3 3	15 0 0	172 8 0
Total, B-II ...	3,577 11 3	5,772 6 4	5,690 8 1	5,806 5 1	3,299 12 10
III.—Contingencies—					
a. Stationery	60 7 1	365 2 11	421 3 1	413 11 8	165 10 1
b. Carriage of Tents and Records	288 0 0	235 1 11	384 5 9	250 11 0	121 1 0
c. Rents, rates and taxes	962 0 8	763 14 5	.....	769 11 3	48 0 0
d Pay of Police Guards.	.....	.....	.....	.....	.....
e. Official postage ...	435 4 6	932 2 6	847 3 6	1,003 7 6	325 2 0
f. Sundries	307 10 6	508 9 3	385 8 3	292 9 2	189 8 9
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	2,053 6 9	2,804 15 0	2,038 4 7	2,730 2 7	849 5 10
TOTAL, B—ESTABLISHMENT	33,016 3 8	55,753 8 1	56,819 7 6	60,333 1 2	28,775 4 10
GRAND TOTAL OF EXPENDITURE	34,736 3 3	93,863 8 1	71,014 1 2	76,516 3 2	34,659 11 2

different Divisions for the forest year 1916-1917—contd.

South Násik Division.	Násik Sub-Division.	Surat Division.	Panch Mahâls Division.	Working Plans Division.	Direction Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	.....	18,001 6 8	.....	.....	.....	22,183 3 9
.....	.....	18,001 6 8	.....	.....	.....	22,183 3 9
.....	.....	.....	.....	.....	.....	.....
.....	.....	374 2 9	.....	.....	.....	374 2 9
66 10 0	.....	541 8 9	1 15 9	1 0 0	.....	1,416 5 7
66 10 0	.....	915 11 6	1 15 9	1 0 0	.....	1,790 8 4
2,038 13 6	.....	15,814 11 11	.....	.....	.....	24,828 8 1
226 3 3	.....	5,758 15 9	128 10 0	.....	.....	26,150 11 11
15 5 0	.....	1,771 3 0	93 13 6	.....	.....	2,372 2 0
2,280 5 9	.....	23,344 14 8	222 7 6	.....	.....	47,351 6 0
372 2 6	32 10 6	68 4 0	61 0 6	.....	.....	1,930 4 6
.....	.....	161 5 10	60 8 0	.....	.....	370 2 8
.....	.....	.....	.....	.....	.....	.....
162 0 3	13 7 0	89 15 9	54 9 6	1 13 0	.....	1,190 4 1
20 9 0	114 2 0	1,140 8 9	206 7 0	.....	.....	5,363 13 0
415 8 0	25 0 0	6,114 12 0	2,372 6 5	.....	.....	20,532 10 0
9 10 0	5 3 0	358 3 0	.....	.....	.....	1,343 2 6
979 13 9	190 6 6	7,933 1 7	2,754 15 11	1 13 0	.....	30,630 5 3
.....	.....	.....	.....	10 12 7	.....	.....
2,388 4 6	566 9 6	1,879 15 4	2,241 3 6	.....	.....	16,847 8 10
2,388 4 6	566 9 6	1,879 15 4	2,241 3 6	10 12 7	.....	16,847 8 10
9,069 14 5	761 5 9	1,05,786 3 7	7,825 6 7	13 9 7	.....	1,99,548 9 6
.....	.....	.....	.....	.....	.....	18,000 0 0
8,082 2 2	3,850 0 0	11,257 11 3	8,325 10 6	.....	.....	81,912 4 9
19,532 14 11	5,697 5 4	20,811 11 1	20,651 0 6	504 9 9	.....	1,65,921 10 10
4,704 11 0	1,995 8 6	6,476 7 5	6,116 4 2	720 13 8	.....	51,078 8 3
862 13 3	.....	5,766 14 10	653 10 11	.....	.....	9,836 8 4
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
						.....
33,342 9 4	11,542 13 10	44,312 12 7	36,245 10 1	1,225 7 5	.....	3,26,749 0 2
.....	.....	.....	.....	.....	.....	2,554 5 10
1,280 0 0	420 0 0	2,398 11 8	2,041 14 2	.....	.....	13,904 11 5
2,085 3 4	407 3 3	2,988 3 1	2,489 2 8	40 8 0	.....	17,878 3 7
351 13 8	299 0 3	965 3 8	501 13 8	243 6 8	.....	5,780 8 7
.....	.....	14 8 5	.....	.....	.....	327 6 0
117 8 0	134 0 0	.....	.....	.....	.....	539 12 8
3,934 9 0	1,260 3 6	6,316 10 10	5,032 14 6	283 14 8	.....	40,975 0 1
261 11 8	82 2 0	249 13 5	383 2 11	0 15 9	.....	2,304 0 7
253 9 0	60 2 0	465 4 5	345 8 11	48 10 0	.....	2,452 6 0
36 0 0	.....	21 0 0	68 0 0	.....	.....	2,668 10 4
.....	.....	.....	.....	.....	.....	.....
415 12 0	195 0 0	450 2 6	909 13 0	13 4 0	.....	5,557 3 6
3.1 12 1	42 9 0	569 11 7	360 9 6	49 1 0	.....	3,097 9 1
.....	.....	.....	.....	.....	.....	.....
1,388 12 9	379 13 0	1,755 15 11	1,967 2 4	111 14 9	.....	16,079 13 6
38,665 15 1	13,182 14 4	52,385 7 4	43,245 10 11	1,621 4 10	.....	3,83,803 13 9*
47,735 13 6	13,944 4 1	1,58,171 10 11	51,071 1 6	1,634 14 5	.....	5,83,352 7 3

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	East Khándesh Division.	West Khándesh Division.	North Khándesh Division.	Poona Division.
CENTRAL CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	138 0 0	.....	283 0 0	887 10 0
b. Firewood and charcoal	.....	234 0 0	.....	7 0 0	9,178 12 0
c. Bamboos	.....	.....	.....	1 0 0	.....
d. Sandalwood	.....	.....	.....	.....	147 12 0
e. Grass and other minor produce ...	.....	.....	.....	.....	5,245 6 0
f. Famine fodder ...	.....	.....	2,182 8 6	2,763 14 6	.....
Total, I ...	.....	372 0 0	2,182 8 6	3,054 14 6	15,439 8 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	12,602 9 0	1,44,976 7 9	46,320 13 6	34,220 14 9
b. Firewood and charcoal	.....	18,398 6 9	4,352 8 0	8,018 14 3	23,449 3 3
c. Bamboos	.....	10,249 4 0	166 12 0	533 12 5	4 8 0
d. Grazing and fodder-grass	.....	90,628 1 1	33,643 9 3	46,307 13 0	63,281 8 6
e. Other minor produce	.....	2,301 2 6	3,108 2 6	5,216 10 0	10,058 0 0
f. Other items	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	.....	1,34,279 7 4	1,96,247 5 6	1,06,397 15 3	1,31,024 3 3
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	266 15 9	227 5 3	216 7 6	551 10 6
Total, III ...	.....	266 15 9	226 5 3	216 7 6	551 10 6
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	7,002 8 9	.....	3,936 15 0	.....
b. Revenue from shared and private Forests	.....	.....	.....	.....	22 5 7
Total, IV ...	.....	7,002 8 9	.....	3,936 15 0	22 5 7
V.—Miscellaneous—					
a. Fines and forfeitures	.. ...	1,862 3 3	1,411 0 0	1,037 2 0	551 4 0
b. Refunds	.....	1 0 0	0 8 0	122 3 0	.....
c. Other sources ...	500 8 0	4,936 12 0	7,117 0 11	8,777 11 4	16,081 7 0
Total, V ...	500 8 0	6,799 15 3	8,528 8 11	9,937 0 7	16,632 11 0
Grand Total, Revenue ...	500 8 0	1,48,720 14 4	2,07,185 12 2	1,23,543 4 10	1,63,670 6 4
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	12 8 0	.....	6 0 0	196 4 6
b. Firewood and charcoal	.....	87 12 0	.....	8 8 0	1,127 8 3
c. Bamboos	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	7 10 0
e. Grass and other minor produce ...	.....	.....	6,411 4 3	2,246 8 5	1,578 15 3
f. Famine fodder ...	.....	.....	.....	.....	.....
Total, A-I ...	.....	100 4 0	6,411 4 3	2,261 0 5	2,910 6 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.	.....	2,038 2 0	2,482 4 2	5,345 10 0	830 12 10
Total, A-II ...	.....	2,038 2 0	2,482 4 2	5,345 10 0	830 12 10
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	6 0 0	.....	9 3 0	.....
Toal, A-III ...	.....	6 0 0	.....	9 3 0	.....
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1916-1917—contd.

Kolaba Division.	Sátára Division.	Working Plans, Central Circle, Division.	West Khándesh Famine Fodder Division.	Kolába Famine Fodder Division.	Total for the forest year 1916-17.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
25 0 0	857 12 0	.....	.....	.....	2,171 6 0
7,046 5 6	11,846 0 6	.....	.....	.....	28,312 2 0
.....	.....	.....	.....	.....	1 0 0
.....	.....	.....	.....	.....	147 12 0
16 0 0	182 8 0	.....	.....	.....	10,390 5 0
.....	.....	.....	64,725 3 4	1,045 0 0	65,770 3 4
7,087 5 6	12,886 4 6	.....	64,725 3 4	1,045 0 0	1,06,792 12 4
1,31,810 4 0	16,598 14 3	.....	.....	.....	3,86,849 15 3
748 7 0	239 0 0	.....	.....	.....	55,206 6 0
2 10 0	128 2 11	.....	.....	.....	11,025 1
13,545 14 0	27,254 7 0	.....	.....	.....	2,79,661 5 1
3,112 12 7	8,821 11 6	.....	.....	.....	37,708 7 7
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
1,49,220 0 4	53,342 3 8	.....	.....	.....	7,70,511 3 4
1,153 9 4	110 6 6	.....	.....	.....	2,526 6 1
1,155 9 4	110 6 6	.....	.....	.....	2,526 6 1
.....	.....	.....	.....	.....	10,939 7 9
3 12 0	.....	.....	.....	.....	26 1 7
3 12 0	.....	.....	.....	.....	10,965 9 4
677 0 0	458 4 0	.....	.....	.....	5,996 13 3
.....	.....	3 15 2	.....	.....	127 10 2
8,656 5 6	6,368 11 0	9 6 3	.....	.....	52,447 14 3
9,333 5 6	6,826 15 0	13 5 5	.....	.....	58,572 5 8
1,66,798 0 8	73,165 13 8	13 5 5	64,725 3 4	1,045 0 0	9,49,368 4 9
.....	133 6 0	.....	.....	.....	348 2 6
5,019 11 7	5,932 6 11	.....	.....	.....	12,175 14 9
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	7 10 0
.....	93 2 0	.....	.....	.....	10,329 13 11
.....	.....	.....	1,950 10 8	.....	1,953 10 8
5,019 11 7	6,158 14 11	.....	1,950 10 8	.....	24,812 3 10
2,978 15 6	169 7 6	.....	.....	.....	13,845 4 0
2,978 15 6	169 7 6	.....	.....	.....	13,845 4 0
16 13 0	.....	.....	.....	.....	32 0 0
16 13 0	.....	.....	.....	.....	32 0 0
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	East Khándesh Division.	West Khándesh Division.	North Khándesh Division.	Poona Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government	.....	.....	.....	.....	636 2 4
Total, A-V ...	.....	.....	.....	.....	636 2 4
VI.—Live-stock, Stores, Tools and Plant—					
a. Purchase of cattle	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant...	79 3 0	89 7 0	134 5 3	22 7 0	71 6 0
Total, A-VI ...	79 3 0	89 7 0	134 5 3	22 7 0	71 6 0
VII.—Communications and Buildings—					
a. Roads and Bridges	.....	1,205 4 1	1,518 12 6	2,635 7 6	1,499 1 9
b. Buildings... ...	.....	298 8 9	708 10 0	533 0 0	123 9 6
c. Other works ...	.....	1 0 0	468 12 0	.....	.....
Total, A-VII ...	.....	1,504 13 10	2,726 2 6	3,168 7 6	1,622 11 3
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	152 12 0	671 4 11	870 6 3	817 6 0
b. Cost of Forest Settlements and Compensation for land and rights	.....	57 8 0	.....	2,282 14 0	534 4 2
c. Surveys	.....	.....	.....	.....	.....
d. Working Plans ...	.....	676 9 6	247 10 2	469 9 9	227 2 9
e. Sowing and Planting	.....	149 8 0	35 15 6	47 7 6	1,795 3 8
f. Protection from Fire	.....	1,453 7 6	4,415 2 3	7,877 0 3	141 0 0
g. Other works ...	.....	56 7 0	3 8 0	.....	229 8 0
Total, A-VIII ...	.....	2,546 4 0	5,403 7 10	11,047 5 0	3,744 8 7
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain Compensation	.....	.....	.....	.....	.....
c. Other charges ...	.....	2,250 11 6	1,944 9 6	2,403 8 2	3,662 2 9
Total, A-IX ...	.....	2,250 11 6	1,948 6 6	2,403 8 2	3,662 2 9
TOTAL A.—CONSERVANCY AND WORKS...	79 3 0	8,535 9 4	19,101 15 6	24,257 9 10	13,278 1 9
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	20,400 0 0	.....	.....	.....	.....
b. Superior Officers .	.....	8,082 13 5	9,805 2 7	9,960 0 0	22,769 8 4
c. Subordinate Forest and Depôt Establishments .	.....	29,107 11 11	21,807 6 2	20,727 14 10	38,669 9 2
d. Office Establishments	9,155 3 0	6,427 13 10	5,244 12 3	5,977 10 10	7,259 0 7
e. Deputation and Special Allowances	10,188 1 11	498 12 11	2,208 8 5	2,173 15 9	392 4 1
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators... ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators .	.....	.....	.....	.....	.....
Total, B-I ...	39,743 4 11	44,067 4 1	39,065 13 5	38,839 9 5	69,090 6 2
II.—Travelling Allowances—					
a. Conservators ...	2,492 11 4	.....	.....	.....	.....
b. Superior Officers .	.....	2,009 11 8	2,223 14 8	2,612 11 8	2,932 4 8
c. Subordinate Forest and Depôt Establishments .	.....	2,672 5 11	2,846 10 7	3,053 15 9	3,433 2 5
d. Office Establishments	623 9 2	535 9 8	691 3 6	720 2 10	787 4 3
e. Forest School, Dehra Dun ...	367 6 0	6 7 3	.....	.....	.....
f. Plague allowances.	120 0 0	75 0 0	94 8 0	105 0 0	177 8 0
Total, B-II ...	3,603 10 6	5,239 2 6	5,862 4 9	6,491 12 3	7,330 3 4
III.—Contingencies—					
a. Stationery ...	16 11 0	417 7 2	257 8 3	332 0 3	634 3 1
b. Carriage of Tents and Records ...	167 15 0	200 11 0	140 10 6	321 14 6	255 1 9
c. Rents, rates and taxes	1,980 0 0	36 0 0	175 0 0	128 0 4	137 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....
e. Official postage...	283 14 0	875 9 9	779 3 0	543 7 0	1,100 11 6
f. Sundries	446 2 0	416 5 0	431 4 9	530 2 0	627 3 9
Payments to Officers of other Provinces.	.....	.....	.....	.....	.....
Total, B-III ...	2,894 10 0	1,946 0 11	1,783 10 6	1,875 8 1	2,754 4 1
TOTAL B.—ESTABLISHMENTS...	46,241 9 5	51,312 7 6	46,711 12 8	47,186 13 9	79,174 13 7
GRAND TOTAL OF EXPENDITURE ...	46,320 12 5	69,848 0 10	65,413 12 2	71,844 7 7	92,852 15 4

different Divisions for the forest year 1916-1917—continued.

Kolába Division.	Sátára Division.	Working Plans Central Circle — Division.	West Khándesh Famine Fodder Division.	Kolába Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
11,032 4 6	3,407 9 5	.....	.....	.....	15,276 0 3
11,032 4 6	3,407 9 5	.....	.....	.....	15,276 0 3
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
24 0 3	31 10 0	31 0 0	.....	.....	483 6 6
24 0 3	31 10 0	31 0 0	.....	.....	483 6 6
76 0 0	3,112 15 6	.....	.....	.....	10,077 9 4
323 13 6	432 13 3	.....	.....	.....	2,425 6 0
21 3 0	151 8 0	.....	.....	.....	642 7 0
425 15 6	3,697 4 9	.....	.....	.....	13,145 6 4
3,216 14 5	458 9 6	.....	.....	.....	5,687 5 1
5 0 0	58 4 0	.....	.....	.....	2,937 14 2
.....	.....	.....	.....	.....	.....
432 12 3	95 8 0	429 6 8	.....	.....	2,598 11 10
602 5 2	1,600 9 8	.....	.....	.....	4,231 1 6
2,752 8 0	151 8 0	.....	.....	.....	16,820 10 0
466 12 0	80 5 0	.....	.....	.....	836 8 0
7,476 3 10	2,444 12 11	449 6 8	.....	.....	33,112 2 7
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
3,729 7 10	2,035 2 8	115 5 6	.....	.....	16,140 12 11
3,729 7 10	2,035 2 8	115 5 6	.....	.....	16,140 12 11
30,703 8 0	17,944 14 2	595 12 2	1,950 10 8	.....	1,16,847 4 5
.....	.....	.....	.....	.....	20,400 0 0
11,094 14 10	15,420 0 0	9,603 3 7	.....	.....	86,685 10 9
39,595 6 1	24,147 0 4	2,094 12 5	.....	.....	1,76,139 12 11
8,667 2 6	6,071 4 9	1,361 7 4	.....	.....	50,164 7 1
119 9 10	—703 6 11	.....	.....	.....	14,787 14 0
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
59,167 1 3	44,844 14 2	13,059 7 4	.....	.....	3,48,177 12 9
.....	.....	.....	.....	.....	2,492 11 4
1,984 13 8	2,511 5 0	1,319 1 4	.....	.....	15,579 14 8
2,144 3 8	2,634 8 2	742 9 9	.....	.....	17,527 6 3
836 11 6	785 13 2	486 14 6	.....	.....	5,467 4 7
82 4 1	82 4 2	.....	.....	.....	538 5 6
20 0 0	.....	35 0 0	.....	.....	627 0 0
5,048 0 11	6,013 14 6	2,583 9 7	.....	.....	42,232 10 4
469 8 10	350 15 7	2 5 6	.....	.....	2,489 11 8
207 6 9	260 12 1	315 9 0	.....	.....	1,370 0 7
.....	22 8 0	.....	.....	.....	2,478 8 4
.....	.....	.....	.....	.....	.....
870 1 6	707 0 0	75 9 6	.....	.....	5,235 8 3
271 6 6	333 0 3	80 9 9	.....	.....	3,136 2 0
.....	.....	.....	.....	.....	.....
1,818 7 7	1,674 3 11	474 1 9	.....	.....	15,200 14 10
66,333 9 9	52,533 0 7	16,117 2 8	.....	.....	4,05,611 5 11
97,037 9 1	70,477 14 9	16,712 14 10	1,950 10 8	.....	5,22,458 10 4

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Working Plans Division.	Dhárwár and Bijápur Division.	Belgaum Division.	Ratnagiri Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	.....	.....	76 0 0	16,503 2 8	.....
b. Firewood and charcoal ...	.....	.....	527 13 11	1,56,207 4 9	.....
c. Bamboos ...	.....	.....	.....	619 4 9	.....
d. Sandalwood ...	.....	.....	10,972 0 8	7,715 10 9	.....
e. Grass and other minor produce ...	.....	.....	202 0 0	353 0 0	.....
Total, I ...	.....	.....	11,777 14 7	1,81,428 15 11	.....
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber ...	.....	.....	86 0 0	44,837 14 5	616 2 4
b. Firewood and charcoal ...	.....	.....	9,804 14 2	30,782 8 0	372 13 0
c. Bamboos ...	.....	.....	208 8 0	4,355 15 11	58 1 7
d. Grazing and fodder grass ...	.....	.....	20,046 5 6	14,962 12 9	89 10 0
e. Other minor produce...	.....	.....	21,422 0 4	15,464 8 6	26 1 6
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	.....	.....	51,657 9 0	1,10,123 11 7	1,162 12 5
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	26 12 0	78 9 0	3 6 0
Total, III ...	.....	.....	26 12 0	78 9 0	3 6 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests .	.....	.....	.....	.....	10 9 6
Total, IV ...	.....	.....	.....	.....	10 9 6
V.—Miscellaneous—					
a. Fines and forfeitures ...	.....	.....	40 0 0	715 5 2	.....
b. Refunds ...	.....	.....	35 9 8	263 8 6	5 0 2
c. Other sources ...	1,645 7 7	8 12 0	3,192 2 11	19,029 1 2	66 8 6
Total, V ...	1,645 7 7	8 12 0	3,267 12 7	20,007 14 10	71 8 8
Grand Total, Revenue ...	1,645 7 7	8 12 0	66,730 0 2	3,11,699 3 4	1,248 4 7
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	13 4 0	.....	.....	16,830 10 3	.....
b. Firewood and charcoal ...	.....	.....	131 10 6	99,483 9 7	.....
c. Bamboos ...	.....	.....	.....	4,726 4 0	.....
d. Sandalwood ...	.....	.....	712 5 3	997 11 7	.....
e. Grass and other minor produce ...	.....	.....	131 6 8	209 1 0	.....
Total, A-I ...	13 4 0	.....	975 6 5	1,22,256 4 5	.....
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	.....	.....	509 11 11	2,985 6 6	.....
Total, A-II ...	.....	.....	509 11 11	2,985 6 6	.....
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	2 0 0	10 6 0	1 0 0
Total, A-III ...	.....	.....	2 0 0	10 6 0	1 0 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests .	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1916-1917—contd.

Kánara Eastern Division.	Kánara Northern Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
2,96,346 13 4	6,83,727 11 6	4,564 6 7	1,33,940 13 5	2,94,895 13 9	14,30,054 13 3
4 8 0	160 0 0	6,500 13 3	67,619 6 8	.....	2,31,119 14 7
299 5 0	.....	.....	665 8 0	.....	1,484 1 9
12,000 2 11	4,124 4 2	4,951 5 8	.....	6,718 12 11	46,482 5 1
.....	.....	.....	.....	.....	555 9 0
3,08,650 13 3	6,88,011 15 8	16,016 9 6	2,02,135 12 1	3,01,614 10 8	17,09,696 11 8
28,283 1 1	2,11,8·2 8 8	2,563 2 11	2,338 12 4	2,312 0 2	2,92,949 8 11
7,323 12 0	2,790 2 9	15,9·9 11 0	21,896 15 11	13,181 3 3	1,06,151 13 1
26,187 3 11	28,016 11 6	1,089 4 0	4,678 11 0	889 12 0	65,484 3 11
7,909 0 0	6,593 0 0	10,957 15 0	7,748 10 0	7,732 6 0	75,739 11 3
2,314 15 0	1,416 4 0	6,291 9 9	4,945 12 8	2,663 11 6	54,534 15 3
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
72,018 0 0	2,51,698 10 11	36,811 10 8	44,608 13 11	26,809 0 11	5,94,820 5 4
1 0 0	4 12 0	65 0 11	71 2 9	2 5 6	253 0 2
1 0 0	4 12 0	65 0 11	71 2 9	2 5 6	253 0 2
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	10 9 6
.....	.....	.....	.....	.....	10 9 6
820 10 4	1,258 8 0	841 14 5	2,074 2 3	2,060 2 11	7,810 11 1
47 0 7	35 6 6	276 7 0	107 14 0	5 6 2	776 4 7
4,212 3 9	4,097 7 1	6,921 10 9	1,593 9 4	3,526 6 4	44,293 5 5
5,079 14 8	5,391 5 7	8,040 0 2	3,775 9 7	5,591 15 5	52,880 5 1
3,85,749 11 11	9,45,106 12 2	60,933 5 3	2,50,591 6 4	3,34,018 0 6	23,57,730 15 10
1,06,409 0 3	1,93,126 0 9	1,556 6 7	1,12,532 12 6	66,135 3 4	4,96,663 5 8
.....	.....	5,562 8 9	54,418 10 8	.....	1,59,546 7 6
186 4 0	.....	.....	5,003 0 0	.....	9,915 8 0
467 1 7	165 1 2	216 13 1	.....	414 5 0	2,973 5 8
33 11 1	.....	.....	.....	.....	463 2 9
1,07,096 0 11	1,93,291 1 11	7,335 12 5	1,71,954 7 2	66,609 8 4	6,69,561 13 7
758 6 3	763 2 9	811 8 2	467 0 2	167 7 4	6,462 11 1
758 6 3	763 2 9	811 8 2	467 0 2	167 7 4	6,462 11 1
.....	2 8 0	9 12 4	18 3 6	29 1 0	72 14 10
.....	2 8 0	9 12 4	18 3 6	29 1 0	72 14 10
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

FORM NO. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Working Plans Division.	Dhárwár and Bijápur Division.	Belgaum Division.	Ratnágiri Division.
EXPENDITURE —*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....
VI.—Live-stock Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	951 8 8	.....	227 14 0	262 12 0	.....
Total, A-VI ...	951 8 8	.....	227 14 0	262 12 0	.....
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	.....	.....	7,075 14 2	.....
b. Buildings ...	.....	.....	756 14 8	1,265 13 7	10 0 0
c. Other works ...	.....	.....	445 2 0	691 12 3	.....
Total, A-VII ...	.....	.....	1,202 0 8	9,033 8 0	10 0 0
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	.....	119 8 9	523 15 5	.....
b. Cost of Forest Settlements and Compensation for land and rights	.....	.....	.....	7,267 13 7	.....
c. Surveys ...	.....	.....	.....	.....	.....
d. Working-plans ...	.....	3,599 11 8	.....	22 13 0	.....
e. Sowing and planting ...	.....	.....	359 13 10	2,300 3 1	403 11 8
f. Protection from fire.	.....	.....	767 10 4	7,933 9 2	30 0 0
g. Other works ...	.....	.....	18 13 9	227 14 6	.....
Total, A-VIII ...	.....	3,599 11 8	1,565 14 8	18,276 4 9	432 11 8
X.—Miscellaneous—					
a. Law charges ...	.....	.....	1 14 0	.....	.....
b. Other charges ...	—17 7 6	144 0 10	1,421 5 4	3,484 10 5	227 12 2
Total, A-IX ...	—17 7 6	144 0 10	1,423 3 4	3,484 10 5	227 12 2
TOTAL, A.—CONSERVANCY AND WORKS ...	947 5 2	3,743 12 6	5,606 3 0	1,56,339 4 1	671 7 10
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	22,800 0 0	.....	.....	.....	.....
b. Superior Officers ...	3,379 5 4	8,120 0 0	5,038 1 0	17,495 2 7	.....
c. Subordinate Forest and Depôt Establishments ...	720 0 0	2,025 5 4	18,677 3 9	28,752 6 10	2,676 15 6
d. Office Establishments	7,536 15 5	1,017 1 0	5,131 14 4	5,548 5 3	474 6 11
e. Deputation and Special Allowances.	.....	446 10 8	72 2 3	2,643 7 6	.....
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....
Total, B-I ...	34,436 4 4	11,609 1 0	28,919 5 4	54,439 6 2	3,151 6 5
II.—Travelling Allowances—					
a. Conservators ...	2,564 4 0	.....	.....	.....	.....
b. Superior Officers ...	326 12 0	1,839 12 0	1,400 4 8	2,473 3 6	.....
c. Subordinate Forest and Depôt Establishments ...	164 13 6	440 4 8	1,412 5 4	3,234 15 0	363 0 0
d. Office Establishments ...	1,023 8 3	360 12 8	370 11 7	867 14 3	.....
e. Forest School (Dehra Dun) ...	.....	.....	.....	.....	.....
f. Plague allowances...	40 14 7	.....	.....	25 0 0	.....
Total, B-II ...	4,120 4 4	2,640 13 4	3,183 5 7	6,601 0 9	363 0 0
III.—Contingencies—					
a. Stationery ...	11 11 0	.....	183 1 4	195 0 9	68 12 0
b. Carriage of Tents and Records ...	451 9 0	.....	261 12 0	276 1 6	21 5 2
c. Rents, Rates and Taxes ...	810 0 0	.....	.....	.....	.....
d. Pay of Police-guards ...	.....	.....	.....	.....	.....
e. Official Postage ...	695 9 0	47 6 0	629 0 0	1,111 7 6	85 0 0
f. Sundries ...	1,567 10 5	.....	345 2 2	846 7 0	35 13 0
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	3,566 7 5	47 6 0	1,618 15 6	2,429 0 9	210 14 2
TOTAL, B—ESTABLISHMENTS ...	42,123 0 1	14,297 4 4	33,721 10 5	63,469 7 8	3,725 4 7
GRAND TOTAL OF EXPENDITURE ...	43,070 5 3	18,041 0 10	39,327 13 5	2,19,808 11 9	4,396 12 5

different Divisions for the forest year 1916-1917—contd.

Kánara Eastern Division.	Kánara Northern Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
208 0 0	723 0 0	.....	343 0 0	.....	1,274 0 0
2,921 5 3	1,587 7 3	.....	357 11 10	.....	4,866 8 4
211 1 9	1,463 4 1	78 15 11	469 9 0	369 5 0	4,034 6 5
3,340 7 0	3,773 11 4	78 15 11	1,170 4 10	669 5 0	10,174 14 9
5,029 5 6	11,254 0 5	1,474 10 11	39,645 4 8	465 7 4	65,844 11 0
1,311 2 11	1,123 14 3	1,592 9 8	1,321 6 11	895 11 8	8,267 9 8
1,020 8 3	758 1 0	14 7 0	1,041 12 5	358 4 0	4,329 14 11
8,261 0 8	13,135 15 8	3,081 11 7	42,008 8 0	1,709 7 0	78,442 3 7
206 12 6	7 4 0	503 11 0	1,533 13 3	16 14 0	2,011 14 11
.....	.....	25 14 7	.....	2,379 15 0	9,673 11 2
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	3,622 8 8
2,900 10 4	5,419 0 5	1,841 1 5	1,843 7 1	1,213 1 0	16,340 0 10
4,899 1 6	4,944 13 8	356 9 6	2,938 6 7	1,025 8 6	22,795 11 3
.....	.....	.....	.....	.....	246 12 3
8,006 8 4	10,371 2 1	2,727 4 6	6,215 10 11	4,635 6 6	55,590 11 1
.....	.....	.....	.....	191 8 0	193 6 0
3,121 8 3	3,737 15 8	1,123 1 11	2,202 1 3	1,277 6 6	16,722 6 10
3,121 8 3	3,737 15 8	1,123 1 11	2,202 1 3	1,468 14 6	16,915 12 10
1,30,643 15 5	2,25,075 9 5	15,103 2 10	2,24,036 3 10	74,989 1 8	8,37,221 1 9
.....	.....	.....	.....	.....	22,800 0 0
17,180 10 3	19,934 13 5	9,060 5 2	17,546 0 4	9,459 5 8	1,07,213 11 9
23,712 13 9	31,987 2 10	16,783 14 1	19,765 0 0	15,087 6 2	1,60,193 4 3
5,909 9 9	6,268 12 7	4,318 10 11	5,496 7 1	3,700 8 19	45,392 11 8
5,176 4 6	3,426 7 8	803 12 5	2,753 0 2	465 9 6	15,787 6 8
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
51,979 6 3	61,607 4 6	30,971 10 7	45,560 7 7	28,712 14 2	3,51,387 2 4
.....	.....	.....	.....	.....	2,564 4 0
2,700 8 0	2,065 4 0	1,860 0 0	2,651 9 4	2,615 4 0	18,632 9 6
2,140 9 0	3,246 14 10	2,131 4 10	2,002 12 4	1,339 0 8	16,636 0 2
384 11 8	475 5 10	510 14 4	270 0 2	609 3 0	4,873 1 9
75 0 0	191 2 1	113 11 4	75 0 0	24 3 2	476 0 7
.....	.....	.....	.....	40 15 4	106 13 11
5,300 12 8	6,678 10 9	4,615 14 6	4,999 5 10	4,638 10 2	43,191 13 11
113 9 6	292 10 6	46 9 2	112 5 3	112 9 5	1,141 4 11
94 2 0	123 0 2	172 0 0	329 13 10	332 2 8	2,061 14 4
.....	0 11 4	.....	.....	.....	840 11 4
.....	.....	.....	.....	.....	.....
607 14 0	439 7 0	746 9 6	453 3 6	727 4 6	5,722 13 0
171 4 1	197 15 5	178 2 9	326 0 10	170 5 10	3,333 13 6
.....	.....	.....	.....	.....	.....
991 13 7	1,053 12 5	1,143 5 5	1,201 7 5	1,342 6 5	13,605 9 1
58,272 0 6	69,339 11 8	36,730 14 6	51,761 4 10	34,743 14 9	4,08,184 9 4
1,88,915 15 11	2,94,415 5 1	51,899 1 4	2,75,797 8 8	1,09,733 0 5	12,45,405 11 1

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1916-1917*—contd.

Budget Head.	Direction.	Thar and Párkar Division.	Lárkána Division.	Sukkur Division.	Hyderabad Division.	Jerruck Division.	Working Plans Division.	Total for the forest year 1916-17.
SIND CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	.....	37 0 0	107 2 0	36 8 0	1,328 0 0	.....	1,508 10 0
b. Firewood and charcoal	.....	.....	1,569 5 5	1,175 8 6	1,187 6 7	9,504 0 0	.....	13,436 4 5
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	298 3 10	448 11 3	986 4 0	.....	1,733 3 1
Total, I ..	.....	.....	1,606 5 5	1,580 14 3	1,672 9 10	11,818 4 0	.....	16,678 1 6
II.—Timber and other produce removed from the forests by consumers or purchasers—								
a. Timber...	.....	445 0 0	13,227 7 8	27,380 1 9	46,856 13 8	17,617 8 6	.....	1,05,526 15 7
b. Firewood and charcoal.	.....	1,696 12 10	38,980 2 7	1,17,095 12 11	73,904 13 5	69,328 7 1	.....	3,01,006 0 10
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass	.....	1,978 8 0	6,991 1 0	13,753 10 5	9,993 8 6	7,216 13 6	.....	39,933 9 5
e. Other minor produce.	.....	1,576 0 0	2,795 12 0	4,002 15 3	23,823 15 2	9,208 0 0	.....	41,406 10 5
f. Other items ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, II ...	.....	5,696 4 10	61,994 7 3	1,62,232 8 4	1,54,579 2 9	1,03,430 13 1	.....	4,87,933 4 3
III.—Drift and waif wood and confiscated forest produce	.....	.....	81 2 9	368 3 3	23 10 0	397 10 6	.....	870 10 6
Total, III ...	.....	.....	81 2 9	368 3 3	23 10 0	397 10 6	.....	870 10 6
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, IV ...	.....	.....	.....	.....	.....	.....	.....	.....
V.—Miscellaneous—								
a. Fines and forfeitures.	.....	.....	30 0 0	293 5 6	371 0 0	1,085 6 10	.....	1,779 12 4
b. Refunds	.....	.....	.....	0 0 4	4 3 8	.....	.....	4 4 0
c. Other sources	21 4 9	.....	6,920 15 5	12,319 1 11	3,944 12 1	3,797 12 3	.....	27,003 14 5
Total V ...	21 4 9	.....	6,950 15 5	12,612 7 9	4,319 15 9	4,883 3 1	.....	28,787 14 9
Grand Total, Revenue ...	21 4 9	5,696 4 10	70,632 14 10	17,794 1 7	1,60,595 6 4	1,20,529 14 8	.....	5,34,269 15 6
EXPENDITURE.								
A.—CONSERVANCY AND WORKS.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	.....	.....	.....	.....	750 0 0	.....	750 0 0
b. Firewood and charcoal	.....	.....	581 10 7	1,578 1 4	927 1 5	4,110 11 9	.....	7,197 9 1
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-I ...	.....	.....	581 10 7	1,578 1 4	927 1 5	4,860 11 9	.....	7,947 9 1
II.—Timber and other produce removed from the forests by consumers or purchasers	.....	.....	5 4 0	16 4 0	295 14 6	530 6 6	.....	847 13 4
Total, A-II ..	.....	.....	5 4 0	16 4 0	295 14 6	530 6 6	.....	847 13 4
III.—Drift and waif wood and confiscated forest produce	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-III ..	.....	.....	.....	.....	.....	.....	.....	.....
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1916-1917*—concld.

Budget Head.	Direction.	Thar and Párkar Division.	Lárkána Division.	Sukkur Division.	Hyderabad Division.	Jerruck Division.	Working Plans Division.	Total for forest year 1916-17.
EXPENDITURE—*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*								
V.—*Rent of leased forests and payment to shareholders in forests managed by Government*	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....	.....	.....	.....
VI.—*Live Stock, Stores, Tools and Plant*—								
a. Purchase of cattle ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	29 15 8	400 15 0	23 2 0	10 3 0	.....	464 3 8
c. Purchase of stores, tools and plant ...	49 0 0	.....	149 13 0	245 5 6	105 10 0	129 4 0	.....	679 0 6
Total, A-VI ...	49 0 0	.....	179 12 8	646 4 6	128 12 0	139 7 0	.....	1,143 4 2
VII.—*Communications and Buildings*—								
a. Roads and bridges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings	.....	.....	723 2 1	937 6 3	624 7 8	506 3 1	.....	2,791 3 1
c. Other works	.....	.....	551 7 7	745 14 11	480 13 7	1,003 0 10	.....	3,381 4 11
Total, A-VII ...	.....	.....	1,274 9 8	1,683 5 2	1,105 5 3	2,109 3 11	.....	6,172 8 0
VIII.—*Organization, Improvement and Extension of forest*—								
a. Demarcation	.....	.....	.....	.....	.....	.....	.....	.....
b. Cost of forest settlements and compensation for land and rights	.....	.....	.....	.....	.....	.....	.....	.....
c Surveys	.....	.....	.....	.....	.....	.....	.....	.....
d. Working Plans ...	.....	.....	1,392 0 6	1,795 0 6	720 14 1	703 11 0	.....	4,611 10 1
e. Sowing and planting ...	.....	.....	380 7 7	2,039 0 9	1,637 4 7	2,143 6 6	.....	6,200 3 5
f. Protection from fire...	.....	.....	.....	.....	.....	1,071 0 4	.....	1,071 0 4
g. Other works	.....	.....	1,152 5 5	.....	1,461 9 0	.....	.....	2,613 14 0
Total, A-VIII ...	.....	.....	2,924 13 1	3,834 1 3	3,819 11 8	3,918 1 10	.....	14,496 11 10
IX.—*Miscellaneous*—								
a. Law charges	.....	.....	.....	1 9 9	.....	.....	.....	1 9 9
b. Grain compensation...	.....	.....	.....	.....	0 12 5	.....	.....	0 12 5
c. Other charges... ...	16 4 0	.....	667 0 6	1,620 11 0	921 4 10	1,099 7 0	.....	4,324 11 4
Total, A-IX ...	16 4 0	.....	667 0 6	1,622 4 9	920 8 10	1,099 7 0	.....	4,325 9 1
TOTAL, A.—CONSERVANCY AND WORKS	65 4 0	.....	5,633 2 6	9,380 5 0	7,197 5 8	12,657 6 0	.....	34,933 7 2
B.—ESTABLISHMENTS.								
I.—*Salaries.*								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	15,000 0 0	.....	8,520 0 0	17,839 4 2	8,579 5 9	14,100 6 0	.....	64,038 9 11
c. Subordinate Forest and Depôt Establishments	.....	1,588 0 5	9,394 9 3	22,241 15 9	10,709 11 11	12,789 10 5	.....	56,714 15 9
d. Office Establishments.	6,651 3 5	.....	4,534 5 5	6,351 2 4	4,785 7 3	7,791 2 11	.....	27,113 5 4
e. Deputation and Special Allowances	1,870 5 2	.....	163 13 1	938 10 0	.....	534 0 8	.....	3,506 12 11
f. Exchange Compensation Allowance—								
1. Conservators ..	.....	.....	.....	1 0 0	.....	.....	.....	1 0 0
2. Deputy Conservators	.....	.....	.....	.....	.....	.....	.....	.....
3. Assistant Conservators...	.....	.....	.....	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-I ...	23,521 8 7	1,588 0 5	22,612 11 9	47,372 0 3	24,065 8 11	32,214 14 0	.....	1,51,374 11 11
II.—*Travelling Allowances*—								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	2,481 3 10	.....	1,762 13 4	2,633 2 11	1,799 3 8	2,555 14 0	.....	11,232 5 9
c. Subordinate Forest and Depôt Establishments.	.....	.....	820 12 4	2,443 3 9	676 10 9	1,065 12 10	.....	5,306 7 9
d. Office Establishments.	762 14 4	.....	581 5 8	1,135 5 4	586 9 2	635 13 10	.....	3,702 0 5
e. Forest School (I.D.).	28 5 4	.....	.....	.....	.....	64 4 3	.....	92 9 7
f. Plague allowances ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Grain compensation .	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-II ...	3,272 7 6	.....	3,164 15 4	6,211 12 0	3,362 7 7	4,321 13 1	.....	20,333 7 6
III.—*Contingencies* -								
a. Stationery	18 14 6	.....	91 15 0	197 6 3	99 1 6	105 1 6	.....	512 6 9
b. Carriage of tents and records	336 10 10	.....	202 0 6	562 9 11	194 6 0	245 3 6	.....	1,540 14 9
c Rents, Rates and Taxes	1,503 2 6	.....	721 10 0	320 9 0	551 8 0	600 0 0	.....	3,696 13 6
d. Pay of Police guards.	.....	.....	.....	.....	.....	.....	.....	.....
e Official postage ...	3 6 9 0	.....	541 10 0	863 5 6	440 9 6	467 2 9	.....	2,639 4 0
f. Sundries	392 13 6	.....	400 13 0	393 9 7	357 10 3	327 1 0	.....	2,071 15 4
Payments to officers of other provinces	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III ...	2,578 2 4	.....	2,158 0 6	2,337 8 3	1,613 3 3	1,744 8 0	.....	10,461 6 4
TOTAL, B.—ESTABLISHMENTS	29,372 2 5	1,588 0 5	27,935 11 7	55,921 4 6	29,071 3 9	38,281 3 1	.....	1,82,169 9 9
GRAND TOTAL OF EXPENDITURE...	29,437 6 5	1,588 0 5	33,568 14 1	65,301 9 6	36,268 9 5	50,938 4 1	.....	2,17,103 0 11

FORM No. 25.—*Annual Account Current for the forest year 1916-1917.*

NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Cash Balance ...	.....	807 2 2	By I. Refunds and Drawbacks—Refunds—Forest	.....	6,248 15 7
„ VIII.—Assessed Taxes—Income Tax—Part I salaries and pensions.	.....	3,790 10 3	„ II. Forest	.....	5,83,352 7 3
„ IX—Forests	.....	20,40,421 6 11	„ General Provident Fund ...	.....	4,791 9 11
„ Bombay Uncovenanted Service Family Pension Fund—Widows' Branch ...	.....	220 6 0	„ Civil Depsoits—Forest deposits	.....	1,83,402 14 11
„ Civil Deposits—Forest deposits.	.....	1,71,000 9 3			
„ Advances Recoverable—			„ Advances Recoverable—		
Forest advances ...	2,69,178 15 9		Forest advances	3,81,448 11 1	
Objection book advances .	4,310 0 0		Advances to non-gazetted officers for purchase of conveyance, etc. ...	310 0 0	
Advances to non-gazetted officers for the purchase of conveyance, etc. ...	203 8 0	3,73,964 7 9	Tentage advances to gazette officers	400 0 0	3,87,812 11 1
Tentage advances to gazetted officers	72 0 0		Motor car advances ...	1,000 0 0	
Motor car advances ...	200 0 0		Objection book advances ...	4,654 0 0	
„ Cheques and Bills—Departmental Cheques—Forests .	.....	6,81,628 2 3	„ Cheques and Bills—Departmental Cheques—cancelled .	.....	7,059 10 10
„ Cash Recoveries—Clothing ...	.....	1,099 12 8	„ Cash Recoveries—clothing ...	.....	1,099 12 8
„ Forest Remittances—			„ Forest Remittances—		
Remittances to treasuries .	2,565 4 6		Remittances to treasuries .	20,94,756 2 9	
Inter-Departmental transfers	1,701 0 1	6,650 8 8	Inter-Departmental transfers	399 0 9	20,97,539 7 7
Inter-Divisional transfers .	2,384 4 1		Inter-Divisional transfers .	2,384 4 1	
„ P. W. D. Remittances—III other remittances and rents of public buildings ...	.....	1,070 7 11	„ P. W. D. Remittances—III other remittances—Miscellaneous	.....	467 8 11
„ Account between Bombay and Post Office—Subscription to Postal Insurance Fund ...	.....	630 6 4	„ 32. Miscellaneous—Refunds—Refund of lapsed deposits—Forest	.....	3 12 0
„ Provincial Advances and Loan Account—Advances to cultivators under Land Improvement and Agriculturists' Loans Act—Tagai Advances	.....	712 3 9	„ Provincial Advance and Loan account—Advances to cultivators under Land Improvement Agriculturists' Loans Act—Tagai Advances ...	.....	49 0 0
„ XII.—Interest—Interest on advances to cultivators under Land Improvement and Agriculturists' Loans Act ...	.....	93 15 11	„ Account between Bombay and Railways—B. B. & C. I. Railway—IV items adjustable by Railways—Miscellaneous	.....	27,627 12 0
„ XX.—Medical—Miscellaneous—Sale-proceeds of quinine	.....	324 14 0	„ Account between Bombay and Military—Poona Division—IV items adjustable by Military—Miscellaneous ...	.....	6,093 0 0
„ Account between India and Bombay—III items adjustable by India—Subscription to the Indian War Loan under the Government Scheme—					
War Bonds, 1920 ...	.....	570 0 0			
Do. 1922 ...	.....	420 0 0			
War Loan, 1922-47 ...	.....	25 0 0			
„ Suspenses Head—War Loan subscriptions under the Presidency Banks Scheme—					
War Bonds, 1920 ...	.....	70 0 0			
Do. 1922 ...	.....	15 0 0			
War Loan, 1922-47 ...	.....	210 0 0			
„ General Provident Fund ...	.....	19,491 0 0	„ Closing Balance	.....	667 7 1
Total, Northern Circle ...	.....	33,06,216 1 10	Total, Northern Circle ...	.....	33,06,216 1 10

FORM No. 25.—*Annual Account Current for the forest year 1916-1917*—continued.

CENTRAL CIRCLE.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....	590 2 9	By I. Refunds and Drawbacks—Forests	.....	1,025 4 6
„ VIII. Income Tax—			Income tax	.....	3 10 0
Recoveries from salaries and pensions paid by Government ..	.....	4,062 10 9			
„ IX. Forest (as per Annual Summary Form No. 67)	.....	9,49,368 4 9	„ II. Forest (as per Annual Summary Form No. 67) ...	.....	5,22,458 10 4
„ XII. Interest—Miscellaneous on other accounts	.....	468 11 0	„ 19B.—Jails Miscellaneous services, District Jails other miscellaneous services and supplies ...	.....	3 11 0
„ XVII B.—Jails—Jail manufactures, sale-proceeds of Jail manufactures	.....	3 8 0	„ Cash Recoveries, Clothing Recoveries	.....	1,716 12 6
„ XX. Medical Miscellaneous—sale-proceeds of quinine	.....	230 0 0	„ 32. Miscellaneous—		
„ Deposits of Service Funds, Bombay U. S. F. Pension Fund ...	.....	285 10 9	Refund of lapsed deposits ...	.....	190 0 0
„ Forest Officers' Provident Fund ...	.....	279 0 0	Forest Advances	.....	3,80,877 13 2
„ General Provident Fund ...	.....	18,201 3 0	Remittances to treasuries, Forest. Remittances	9,84,490 7 1	
„ Advances repayable, Civil—Advances, Tenage Advances to Gazetted Officers	13 14 2		Inter-Departmental Transfers .	3,513 15 6	9,88,355 6 7
Objection Book Advance	1,580 10 8		Inter-Divisional Transfers ...	351 0 0	
Advances to Non-Gazetted Officers for the purchase of ponies, cycles, etc.	173 8 0	2,618 0 10	Forest Deposits	.....	55,705 11 4
Advances to Gazetted Officers for the purchase of motor cars, etc. ...	850 0 0		„ Advances Repayable—		
Forest Advances	.....	3,82,598 14 9	Objection Book Advances ...	1,707 0 0	
Civil Deposits, Forest Deposits ..	.....	62,536 9 0	Advances to Gazetted Officers for the purchase of motor car ...	2,500 0 0	4,407 0 0
Cash Recoveries, Clothing Recoveries	.....	1,716 12 6	Advances to Non-Gazetted Officers for the purchase of ponies, cycles, etc.	200 0 0	
Cheques and Bill, Departmental Cheques—Forests	.....	5,44,657 10 9	General Provident Fund ...	.....	4,272 2 11
Remittances to Treasuries ...	.....	686 10 3	Suspense Account	.....	194 0 0
Inter-Departmental Transfers ..	.....	12,447 10 1	„ Account between Civil and Military, Account between Bombay and Military, Supply Circle—		
Inter-Divisional Transfers ..	.....	276 0 0	IV.—Items adjustable by Military Miscellaneous ...	.....	461 0 0
„ P. W. D. Remittances III—			„ Account between Bombay and Military, Poona Division—		
Other Remittances, Rent	2,294 7 6	2,311 2 2	IV. Items adjustable by Military Miscellaneous ..	.....	6,386 9 0
Miscellaneous	16 10 8		„ Cheques and Bills—(Cancelled) Forests Cheques	.....	691 0 2
„ Account between Bombay and Post Office, Postal deductions	732 8 8	842 8 8	„ Account between Central Provinces and Bombay—		
„ Miscellaneous receipts on account of Indian War Loan Bonds of 1920 ...	110 0 0		III—Items adjustable by Central Provinces Miscellaneous ...	.....	18,012 14 0
„ Suspense Account	.....	194 0 0			
Do. Bank Scheme—					
„ War Bonds of 1922	.....	265 0 0			
Do. of 1920	.....	85 0 0			
„ Account between India and Bombay War Loan under Government Scheme, 1929-47	.....	115 0 0			
Do. —War Bonds of 1920 ...	.....	630 0 0			
Do. do. of 1922 ...	.....	30 0 0			
Total, Central Circle ...	.....	19,85,500 2 0	Total, Central Circle ...	.....	19,85,500 2 0
			Closing Balance ...	.....	738 8 6

FORM No. 25.—*Annual Account Current for the forest year 1916-1917*—continued.

SOUTHERN CIRCLE.	Rs. a. p.	Rs a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....	3,021 4 8	By I. Refunds and Drawbacks—Refunds—Divided Heads, Forests	.....	4,308 15 3
„ VIII. Assessed Taxes—Income Tax—Deductions by Government from salaries and pensions.	.....	5,123 2 0	„ II. Forest (as per Annual Summary Form No. 67)	.....	12,45,405 11 1
„ IX. Forest (as per Annual Summary Form No. 67)...	.....	23,57,730 15 10	Savings Bank Deposits—General Provident Fund ...	.....	8,081 10 3
„ XII. Interest—Miscellaneous on other accounts	.....	3,304 6 11	„ Civil Deposits—Forest Deposits ..	1,20,747 4 4	
„ Bombay Uncovenanted Service Family Pension Fund—Widows' Branch	43 6 2		„ Civil Deposits—Personal Deposits—Other Departments—Indian Imperial War Relief Fund	4 4 0	1,20,751 8 4
Life Assurance Branch	37 3 6	80 9 8	„ Advances Recoverable—Forest Advances	7,04,550 9 7	
„ Civil Deposits—Forest Deposits ...	1,26,914 5 11		Objection Book Advances ...	2,307 8 0	
„ Civil Deposits—Personal Deposits—Other Departments	*—58 5 0*	1,26,856 0 11	„ Advances to Non-Gazetted Officers for the purchase of conveyances	1,090 0 0	7,07,948 1 7
„ Advances Recoverable—Forest Advances	6,83,980 5 2		Motor Car Advances ..	.....	
Tentage Advances to Gazetted Officers	.....		„ Cash Recoveries	.....	1,277 2 2
Objection Book Advances... ...	2,368 10 8	6,99,459 14 0	„ Cheques and Bills—Cancelled Departmental Cheques (Forests).	.....	35,908 6 11
Advances to Non-Gazetted Officers for the purchase of conveyances.	877 8 0		„ Forest Remittances—Remittances to Treasuries	19,31,296 2 7	
Motor Car Advances	3,233 6 2		Inter-Divisional Transfers ...	260 0 0	19,31,600 10 7
„ Cash Recoveries	.....	1,277 2 2	Inter-Departmental Transfers.	44 8 0	
„ Cheques and Bills—Departmental Cheques—Forests	.....	12,99,377 10 11	„ P. W. Remittances—III. Other Remittances — Miscellaneous	.....	10,530 3 5
„ Forest Remittances—Remittances to Treasuries ...	2,816 10 0		„ Account between Bombay and Railways—M. & S. M. Railway. IV. Items adjustable by Railways—Miscellaneous	.....	4,60,939 14 10
Inter-Divisional Transfers ...	1,677 0 0	27,991 12 8	„ 32. Miscellaneous—Miscellaneous Refunds—Lapsed Deposits ...	.....	596 9 6
Inter-Departmental Transfers ...	23,408 2 8		„ Account between Bombay and Military Supply Circle—IV. Items adjustable by Military Miscellaneous	.....	11,346 14 0
„ Account between Bombay and Post Office—Postal Fund Deductions	.....	776 13 4	IV. Items adjustable by Military—Poona Division—Miscellaneous	.....	30 0 0
„ P. W. Remittances—III. Other Remittances—Rents of Public Buildings	1,439 1 6		„ 32. Miscellaneous Temporary recoverable Loans written off .	.....	127 8 0
Rents of Public Buildings, Miscellaneous	298 14 6	1,738 0 0	„ Account between Bombay and Telegraphs	.....	3 0 0
„ General Provident Fund	.....	26,251 4 2	„ Account between Bombay and Military Works—IV. Items adjustable by Military Works—Miscellaneous	.....	84 0 0
„ Account between Bombay and Military, Supply Circle—IV. Items adjustable by Military—Miscellaneous	.....	.. ...	„ 32. Miscellaneous—Miscellaneous and Unforeseen Charges—Other unforeseen Charges, Provincial	.....	3,143 8 11
„ XXV. Miscellaneous—Sale-porceeds of stores and materials, Provincial.	.....	268 5 8	„ 19B Jails—Central Jails—Jail Manufacture of Raw Materials	.....	1,001 12 10
„ XVIB. Law and Justice—Jail manufactures, sale-proceeds of Jail manufactures	.....	114 12 0	„ 19B Jails—District Jails—Jail Manufacture of Raw Materials	.....	325 2 0
„ Suspense Account	.....	84 0 0	„ Suspense Account	.....	84 0 0
Account between India and Bombay, III—Items adjustable by India, subscription to War Loan under Government Scheme ...	.....	100 0 0	„ Interest on other obligations—Interest on Miscellaneous Account, Refunds	.....	26 15 7
Account between Bombay and Post Office, Miscellaneous War Bonds, 1920	.....	110 0 0	„ Closing Balance	.....	1,204 7 8
Acoount between Bombay and Post Office, Miscellaneous War Loan, 1929-47	.....	150 0 0			
Total, Southern Circle ...	.....	45,44,726 2 11	Total, Southern Circle ...	.....	45,44,726 2 11

FORM No. 25.—*Annual Account Current for the forest year 1916-1917*—concluded.

SIND CIRCLE.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....	265 8 6	By 1. Refunds and Drawbacks—Refunds—		
„ VIII. Assessed Taxes—Income Tax—			Divided Heads (Forests) ...	.....	221 12 8
Deductions by Government from Salaries and Pensions...	.....	2,479 12 8	„ 11. Forest (as per Annual Summary Form No. 67) ...	.....	2,17,103 0 11
„ IX. Forest (as per Annual Summary Form No. 67)	.....	5,34,269 15 0			
„ Civil Deposits—			„ Civil Deposits—Forest Deposits ...	.....	11,691 6 0
Forest Deposits	.....	19,667 15 6	„ 32. Miscellaneous—Miscellaneous Refunds—		
„ Advances Recoverable—					
Forest Advances	1,10,547 4 7		Refund of lapsed Deposits ..	.....	280 2 0
Objection Book Advances ...	170 0 0	1,10,732 4 7	„ 32. Miscellaneous—Miscellaneous and Unforeseen Charges—(Provincial) Other unforeseen charges ...	.....	29 1 5
Advances to Non-Gazetted Officers for the purchase of conveyances, etc.	15 0 0				
„ Cash Recoveries—Clothing	.....	133 15 0	„ Advances Recoverable—		
			Forest Advances	1,12,354 14 9	1,12,574 14 9
„ Cheques and Bills—Departmental Cheques—Forests	.....	2,16,092 0 3	Objection Book Advances ..	220 0 0	
„ Forest Remittances—			„ Cash Recoveries—Clothing ...	.....	133 15 0
Remittances to Treasuries ..	59 1 1	143 11 1	„ Cheques and Bills (cancelled) Departmental Cheques, Forests ...	.....	275 0 0
Inter-Departmental Transfers .	84 10 0				
„ Account between Bombay and Post Office—			„ Forest Remittances—		
Postal Fund Deductions ...	.....	365 4 0	Remittances to Treasuries ...	5,47,519 11 6	5,47,519 11 6
„ P. W. Remittances—			Inter-Departmental Transfers.	.....	
III. Other Remittances—					
Rents of Public Buildings ...	.....	351 0 0	Savings Bank Deposits—		
			General Provident Fund ...	.....	60 0 0
„ Objection Book Advances—Suspense—Suspense Account ...	.....	82 7 4	„ P. W. D. Remittances—		
„ XX. Medical—Miscellaneous—Sale-proceeds of quinine ..	.....	127 15 0	III. Other Remittances—		
„ General Provident Fund ...	.....	10,522 4 0	Items adjustable by P. W. D.—		
„ Account between India and Bombay—			Miscellaneous	.....	5,163 6 8
IV. Items adjustable by India—			„ Refunds and Drawbacks—Refunds—Divided heads—Assessed Taxes—Income Tax	.....	8 10 4
Subscriptions to the War Loan under Government Scheme—					
War Bonds—1920 ...	.....	200 0 0	„ Objection Book Advances—Suspense—Suspense Accounts ...	.....	373 5 11
War Bonds—1922 ...	.....	100 0 0			
„ Suspense Head—					
War Loan Subscription under the Presidency Bank Scheme—War Bonds—1920 ...	.....	120 0 0	Closing Balance	.....	219 9 9
Total, Sind Circle ...	.....	8,95,654 0 11	Total, Sind Circle ...	.....	8,95,654 0 11
GRAND TOTAL ...	.....	1,07,32,096 7 8		.....	1,07,32,096 7 8

FORM No. 26.—*Revenue received and outstandings on account of revenue during 1916-1917.*

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balancedue to the Deparment at endof year.	Remarks.
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	Various sources ...	.....	432 6 0	432 6 0	432 6 0	.....	
Panch Mahals.	Timber and other forest produce.	.....	1,49,726 11 9	1,49,726 11 9	1,49,726 11 9	.....	
Surat ...	Do. ...	1,273 12 0	1,99,193 15 11	2,00,467 11 11	1,99,187 11 11	1,280 0 0	
North Thána.	Do. ..	.....	8,48,100 15 7	8,48,100 15 7	7,99,828 15 7	48,272 0 0	
West Thána ...	Do. ..	.....	3,46,392 9 9	3,46,392 9 9	3,46,392 9 9	.....	
East Thána ...	Do. ..	.....	2,98,801 1 9	2,98,801 1 9	2,84,555 9 9	14,245 8 0	
South Násik ...	Do. ..	130 0 0	1,57,745 15 8	1,57,875 15 8	1,57,840 15 8	35 0 0	
North Násik ...	Do. ..	.....	63,420 1 0	63,420 1 0	63,420 1 0	.....	
Násik Sub. Division.	Do. ..	.....	2,401 4 0	2,401 4 0	2,401 4 0	.....	
Direction (Famine Fodder).	Famine fodder ...	.....	641 14 0	641 14 0	641 14 0	.....	
	Total, Northern Circle .	1,403 12 0	20,66,856 15 5	20,68,260 11 5	20,04,428 3 5	63,832 8 0	
CENTRAL CIRCLE.							
Direction ...	Various sources ...	.....	500 8 0	500 8 0	500 8 0	.....	
East Khándesh.	Timber and other forest produce.	.....	1,48,720 14 4	1,48,720 14 4	1,48,720 14 4	.....	
West Khándesh.	Do. ...	.....	2,10,238 12 2	2,10,238 12 2	2,07,185 12 2	3,053 0 0	
North Khándesh.	Do. ..	290 0 0	1,23,857 12 16	1,24,147 12 10	1,23,543 4 10	604 8 0	
Poona ..	Do. ...	.....	1,71,172 6 4	1,71,172 6 4	1,63,670 6 4	7,502 0 0	
Sátára ...	Do. ..	52 0 0	74,215 6 8	74,267 6 8	73,165 13 8	1,101 9 0	
Kolába ...	Do. ..	656 0 0	1,66,798 0 8	1,67,454 0 8	1,66,798 0 8	656 0 0	
Working Plans.	Do. ..	.....	13 5 5	13 5 5	13 5 5	.....	
	Total, Central Circle ..	998 0 0	8,95,517 2 5	8,96,515 2 5	8,83,598 1 5	12,917 1 0	
SOUTHERN CIRCLE.							
Kánara, Northern.	Timber and other forest produce.	2,72,273 13 0	10,64,008 7 8	13,36,282 4 8	(a)612 0 0 9,45,106 12 2 (b)885 8 3	3,89,678 0 3	(a) Amount adjusted in the accounts for March (III Supplementary) 1916, and not accounted for by the Divisional Forest Officer in the last year's return.
Kánara, Eastern.	Do. ..	1,18,926 5 6	3,81,002 9 7	4,99,928 15 1	3,85,749 11 11 (b)93 0 0	1,14,086 3 2	
Kánara, Central.	Do. ..	25,661 7 10	3,24,926 1 9	3,50,587 9 7	3,34,018 0 6	16,569 9 1	
Kánara, Southern.	Do. ...	7,261 10 7	55,925 4 2	63,186 14 9	60,933 5 3 (b)352 10 0	1,900 15 6	
Kánara, Western.	Do. ...	23,444 3 0	2,53,202 0 9	2,76,646 3 9	2,50,591 6 4	26,054 13 5	
Belgaum ...	Do. ..	44,450 6 0	3,12,554 13 0	3,57,005 3 0	3,11,699 3 4	45,305 15 8	
Dhárwár-Bijápur.	Do. ..	377 11 9	66,810 9 1	67,188 4 10	66,730 0 2 (b)146 6 0	311 14 8	
Ratnágiri ...	Do. ...	.....	1,248 4 7	1,248 4 7	1,248 4 7	.....	
Direction ...	Various sources ...	.....	1,645 7 7	1,645 7 7	1,645 7 7	.....	
Working Plans.		.....	8 12 0	8 12 0	8 12 0	.....	(b) Revenue written off during the year :— Items. Amt. False balance.. 4 897-6-3 Rea. balance. 7 580 2-0 Total.. 11 1,477-8-3
	Total, Southern Circle..	4,92,395 9 8	24,61,332 6 2	29,53,727 15 10	(a)612 0 0 23,57,730 15 10 (b) 1,477 8 3	5,93,907 7 9	
SIND CIRCLE.							
Direction ...	Various sources ..	.....	.....	.....	.. ...	.....	
Sukkur ...	Timber and other forest produce.	24,913 12 0	1,39,383 5 10	1,64,297 1 10	1,64,181 9 10	115 8 0	
Lárkána ...	Do. ...	6,097 12 0	57,584 3 5	63,681 15 5	63,681 15 5	.....	
Hyderabad ...	Do. ...	20,870 10 8	1,40,819 11 11	1,61,690 6 7	1,56,275 6 7	5,415 0 0	
Jerruck ...	Do. ...	25,628 6 1	1,09,388 3 6	1,35,016 9 7	1,15,646 11 7	19,369 14 0	
Thar and Párkar.	Do. ...	.....	5,696 4 10	5,696 4 10	5,696 4 10	.....	
	Total, Sind Circle ...	77,510 8 9	4,52,871 13 6	5,30,382 6 3	5,05,482 0 3	24,900 6 0	
	GRAND TOTAL ...	5,72,307 14 5	58,76,578 5 6	64,48,886 3 11	57,53,328 13 2	6,95,557 6 9	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1916-1917.*

Division.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
North Thána ...	...	229 0 0	229 0 0	.....	229 0 0	229 0 0	.....	...	
Surat ...	...	8,757 8 0	8,757 8 0	13,757 8 0	17,000 0 0	30,757 8 0	22,000 0 0	...	
Total, Contractors ...	...	8,986 8 0	8,986 8 0	13,757 8 0	17,229 0 0	30,986 8 0	22,000 0 0	...	
Disbursers.									
Direction ...	...	1,423 3 9	1,423 3 9	.....	1,423 3 9	1,423 3 9	.....	...	
North Thána ...	...	61,156 8 11	61,156 8 11	891 3 2	62,879 0 10	63,770 4 0	2,613 11 1	...	
West Thána ...	...	50,035 14 8	50,035 14 8	1,389 12 9	50,355 4 4	51,745 1 1	1,709 2 5	...	
East Thána ...	...	51,169 3 7	51,169 3 7	918 12 4	52,821 10 11	53,740 7 3	2,571 3 8	...	
North Násik ...	...	24,705 13 2	24,705 13 2	834 0 4	24,272 15 10	25,107 0 2	401 3 0	...	
South Násik ...	...	35,671 4 4	35,671 4 4	1,416 1 5	35,257 4 3	36,673 5 8	1,002 1 4	...	
Panch Maháls ...	...	33,022 1 4	33,022 1 4	587 6 1	33,225 6 1	33,812 12 2	790 10 10	...	
Surat ...	...	95,315 11 2	95,315 11 2	4,580 15 9	95,939 15 5	1,00,520 15 2	5,205 4 0	...	
Sub-Násik ...	...	7,692 4 4	7,692 4 4	.....	8,044 13 8	8,044 13 8	352 9 4	...	
Total, Disbursers ..	...	3,60,192 1 3	3,60,192 1 3	10,618 3 10	3,64,219 11 1	3,74,837 14 11	14,645 13 8	...	
TOTAL, N. C. ..	...	3,69,178 9 3	3,69,178 9 3	24,375 11 10	3,81,448 11 1	4,05,824 6 11	36,645 13 8	...	
CENTRAL CIRCLE.									
Contractors.									
Direction ...	...	2,500 0 0	2,500 0 0	.....	.....	.....	.....	2,500 0 0	
Total, Contractors ...	...	2,500 0 0	2,500 0 0	.....	.....	.....	.....	2,500 0 0	
Disbursers.									
Direction ...	...	.....	.....	1 2 0	.....	1 2 0	1 2 0	...	
East Khándesh ...	...	46,508 14 0	46,508 14 0	413 14 9	46,702 10 6	47,116 9 3	607 11 3	...	
West Khándesh ...	...	72,886 11 1	72,886 11 1	3,009 1 11	75,065 15 4	78,075 1 3	5,188 6 2	...	
North Khándesh ..	...	73,808 4 1	73,808 4 1	3,177 8 0	72,413 2 2	75,590 10 2	1,782 6 1	...	
Poona ...	...	68,596 2 7	68,596 2 7	1,514 10 11	68,313 12 2	69,828 7 1	1,232 4 6	...	
Kolába ...	...	65,857 1 4	65,857 1 4	885 0 5	65,816 0 0	66,701 0 5	843 15 1	...	
Sátára ...	...	51,041 13 8	51,041 13 8	1,267 7 1	51,166 5 0	52,433 12 1	1,391 14 5	...	
Working Plans ...	...	900 0 0	900 0 0	.....	900 0 0	900 0 0	.....	...	
West Khándesh Famine Fodder.	...	500 0 0	500 0 0	.....	500 0 0	500 0 0	.....	...	
Total, Disbursers ...	...	3,80,098 14 9	3,80,098 14 9	10,268 13 1	3,80,877 13 2	3,91,146 10 3	11,047 11 6	...	
TOTAL, C. C. ...	...	3,82,598 14 9	3,82,598 14 9	10,268 13 1	3,80,877 13 2	3,91,146 10 3	8,547 11 6	2,500 0 0	

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FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1916-1917*—concld.

Division.	Department Debtor.			Department Creditor.			Balance Due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
Dhárwár-Bijápur ..	...	281 7 0	281 7 0	281 7 1	.....	281 7 0	.....	...	
Kánara, N. D. ...	...	39,294 10 6	39,294 10 6	28,031 7 2	29,248 0 0	57,279 7 2	17,984 12 8	...	
Belgaum	...	96,833 15 5	96,833 15 5	65,576 0 9	1,16,145 0 0	1,81,721 0 9	84,887 1 4	...	
Kánara, W. D. ...	...	78,615 12 3	78,615 12 3	45,964 0 0	79,354 4 3	1,25,318 4 3	46,702 8 0	...	
Kánara, S. D. ...	...	3,080 8 9	3,080 8 9	4,700 0 0	2,319 0 0	7,019 0 0	3,938 7 3	...	
Kánara, E. D. ...	...	40,844 11 2	40,844 11 2	13,212 6 9	47,336 0 0	60,548 6 9	19,703 11 7	...	
Kánara, C. D. ...	...	25,418 3 6	25,418 3 6	19,462 10 9	16,881 11 7	36,344 6 4	10,926 2 10	...	
Total, Contractors ...	...	2,84,369 4 7	2,84,369 4 7	1,77,228 0 5	2,91,283 15 10	4,68,512 0 3	1,84,142 11 8	...	
Disbursers.									
Dhárwár-Bijápur ...	...	26,322 6 8	26,322 6 8	1,452 15 4	25,494 5 5	26,947 4 9	624 14 1	...	
Belgaum	...	1,03,205 9 5	1,03,205 9 5	10,407 13 1	1,07,270 0 0	1,17,677 13 1	14,472 3 8	...	
Kánara, N. D. ..	...	90,010 9 2	90,010 9 2	4,255 12 7	91,646 8 8	95,902 5 3	5,891 12 1	...	
Kánara, W. D. ...	...	46,141 15 1	46,141 15 1	3,883 9 7	50,915 11 9	54,799 5 4	8,657 6 3	...	
Kánara, S. D. ...	...	35,371 12 0	35,371 12 0	1,327 12 6	34,732 0 10	36,059 13 4	688 1 4	...	
Kánara, E. D. ...	...	63,340 2 11	63,340 2 11	2,827 4 10	65,505 4 0	68,332 8 10	4,992 5 11	...	
Kánara, C. D. ...	...	27,893 14 3	27,893 14 3	876 7 1	30,559 8 0	31,235 15 1	3,312 0 10	...	
Ratnágiri	...	3,774 11 1	3,774 11 1	8 0 0	3,793 3 1	3,801 3 1	26 8 0	...	
Working Plans ...	...	2,650 0 0	2,650 0 0	.....	2,650 0 0	2,650 0 0	.....	...	
Direction	...	900 0 0	900 0 0	.. ...	900 0 0	900 0 0	... ..	...	
Total, Disbursers ..	...	3,99,611 0 7	3,99,611 0 7	25,039 11 0	4,13,266 9 9	4,38,306 4 9	38,695 4 2	...	
TOTAL, S. C. ...	...	6,83,980 5 2	6,83,980 5 2	2,02,267 11 5	7,04,550 9 7	9,06,818 5 0	2,22,837 15 10	...	
SIND CIRCLE.									
Contractors.									
Direction	...	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	...	
Lárkána	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Jerruck	...	130 0 0	130 0 0	.....	130 0 0	130 0 0	.....	...	
Hyderabad	...	120 0 0	120 0 0	.....	120 0 0	120 0 0	.....	...	
Sukkur	...	30 0 0	30 0 0	.....	30 0 0	30 0 0	.....	...	
Total, Contractors ..	...	400 0 0	400 0 0	.....	400 0 0	400 0 0	.....	...	
Disbursers.									
Lárkána	...	19,402 2 1	19,402 2 1	139 12 9	19,771 2 7	19,910 15 4	508 13 3	...	
Jerruck	...	28,421 15 3	28,421 15 3	1,031 3 4	28,544 12 0	29,575 15 4	1,154 0 1	...	
Hyderabad	...	18,459 10 4	18,459 10 4	119 0 6	18,830 0 0	18,949 0 6	489 6 2	...	
Sukkur	...	43,863 8 11	43,863 8 11	486 11 4	44,809 0 2	45,295 11 6	1,432 2 7	...	
Total, Disbursers ...	...	1,10,147 4 7	1,10,147 4 7	1,776 11 11	1,11,954 14 9	1,13,731 10 8	3,584 6 1	...	
Total, Sind Circle ...	...	1,10,547 4 7	1,10,547 4 7	1,776 11 11	1,12,354 14 9	1,14,131 10 8	3,584 6 1	...	
GRAND TOTAL ..	...	15,46,305 1 9	15,46,305 1 9	2,38,689 0 3	15,79,232 0 7	18,17,921 0 10	2,71,615 15 1	...	

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GOVERNMENT OF BOMBAY.

REVENUE DEPARTMENT.

Resolution No. 6309.

Bombay Castle, 7th June 1918.

Letters from the Deputy Conservator of Forests in charge Sind Circle Nos. 753, 1204 and 1277 dated 24th August, 18th September and 22nd September 1917, respectively.
Letter from the Conservator of Forests, C. C., No. 1252 dated 1st October 1917.
Letters from the Conservator of Forests, N. C., Nos. 1566 and 1586 dated 2nd and 6th October 1917.
Letter from the Conservator of Forests, S. C., No. 2030 dated 28th September 1917.
} Forwarding the Forest Administration Reports of their respective Circles for the year 1916-17.

Memorandum from the Commissioner, N. D., F.O.R.—47 dated 18th October 1917—Forwarding his remarks on the Forest Administration Report of the Northern Circle for the year 1916-17.

Memorandum from the Commissioner, C. D., No. A.—1436 dated 27th October 1917—Forwarding his remarks on the Forest Administration Reports of the Northern and Central Circles for the year 1916-17 so far as the areas in the Central Division are concerned.

Memorandum from the Commissioner, S. D., No. 6111 dated 24th October 1917—Forwarding his remarks on the Forest Administration Report of the Southern Circle for the year 1916-17.

Memorandum from the Commissioner in Sind No. 3238 dated 5th November 1917—Forwarding his remarks on the Forest Administration Report of the Sind Circle for the year 1916-17.

RESOLUTION.—During the year 1916-17 the total forest area of the Presidency decreased by 29 square miles from 15,018 to 14,989 square miles, of which 13,955 square miles were reserved forest and 1,034 square miles protected forest. The principal change occurred in the Central Circle, nearly 38 square miles of reserved pasture in the Poona and Ahmednagar Districts being disforested for cultivation. In the Southern Circle an addition of rather more than four square miles was made to the area of reserved forest by the inclusion in the North Kánara and Belgaum Divisions of patches of Government waste which either had been relinquished by their former occupants or were useless for cultivation. In Sind the changes that occur are principally due to the action of the Indus, and in the year under review, while 32 square miles were incorporated in forest by alluvial accretion, losses by erosion accounted for 18 square miles.

The forest area in charge of the Revenue Department was reduced from 2,537 to 2,500 square miles, the reduction being mainly due to the disforestment of land in the Central Circle referred to above. Apart from this change, an area of over seven square miles of pasture forest in the Belgaum Division was transferred to the charge of the Forest Department in order to complete the blocks of the Gokák working plan, while on the other hand in the Poona Division, in accordance with a scheme which has been in gradual operation since 1907, eight square miles of pasture forest were transferred to the Revenue Department after the removal of the forest growth.

There were important reconstitutions of charges both in the Násik and in the Thána forests. In the former case a redistribution of ranges was effected between the North and the South Násik Divisions, while a new subdivision was carved out of them and constituted an independent charge under the Conservator. In the latter, the old Central Thána and South

Thána Divisions, the configuration of which had been based on climatic rather than on administrative considerations, were re-constituted into compact and administratively convenient charges under the designations of West Thána and East Thána Divisions, respectively. Minor readjustments were effected between the Eastern, Central and Western Divisions of the Kánara forests.

With regard to settlement work, Government trust that effective progress will be made in clearing off the arrears in connection with the Kánara and Belgaum settlements, now that the discussion as to the procedure that should be adopted for dealing with them has been brought to a definite conclusion. Further progress has been made in Sind, and the arrears at the close of the year amounted to only 286 acres. A considerable advance was made in respect of the demarcation of forest boundaries, 854 miles of boundary line being dealt with during the year, of which 486 were in South Kánara and 192 in Kolába. The balance now remaining has thus been reduced to 373 miles of which 124 are in the Poona and 114 in the Belgaum Divisions. In Sind the work of demarcation, so far as external boundaries are concerned, has been completed.

2. The progress recorded during the year in the drawing up of working plans is rather exiguous, the actual addition to the area under working plans being only 149 square miles, while revised plans covering an area of 91 square miles were sanctioned. But these figures, taken from form No. 11, do not disclose all the work done. A plan for the hitherto unorganized forests of the South Dángs was sanctioned after the close of the year, and the revised plan for the Eastern Maháls was practically completed, its provisions, which substitute clear felling for the former system of coppice with standards, having been applied in anticipation of sanction, not only to that area but also to the Western Maháls. Of greater importance perhaps was the revision of the working plans of the Thána forests in the light of the valuable suggestions made by the Inspector General of Forests as the result of his tour during the early part of 1917 through the principal forest areas of the Presidency. This visit of inspection had important results in the Central Circle also, where it led to the radical alterations of the working plans, then in course of preparation, of the Satpura forests of North Khándesh and the modification on the same lines of the plans recently sanctioned for the East Khándesh forests. In the Southern Circle the Gokák fuel working-plan was sanctioned, and plans for a portion of the Bhagvati forest and for the Kirwatti teak pole area were revised.

With regard to the subject of " control ", it is not apparent from the Conservator's report what progress has been made in reducing the arrears of work in the Kánara forests which were commented on last year. The special statement furnished for the Southern Circle as a supplement to form No. 11 is largely incomplete, three divisions having apparently sent in no returns. It is evident however that much has been achieved in the direction of removing or surmounting the obstacles to the execution of the working plans of the Kánara forests. The survey of the Dandeli-Alnawar Railway, which will open out to more thorough exploitation extensive valuable forest areas, was completed during the year, and since its close the work of construction has been taken in hand. Progress was also made with the work of adapting the channels and beds of the Kalinadi and the Kaneri river for the floating down of timber. The labour difficulty is still a serious impediment to improved exploitation on an extensive scale. The local officers have devoted much care and thought to the problem, and proposals are at present under the consideration of Government which have for their object the increase of the in-forest population of the Kánara reserves and the provision of greater facilities for securing its effective co-operation in the activities of the Department. But progress in this direction will necessarily be gradual.

3. The total expenditure incurred during the year on communications and buildings was Rs. 1,36,264, an increase of about Rs. 30,000 on the previous year's figure. As the amount spent on repairs remained practically stationary at about Rs. 58,000, the whole of this increase occurred under the head of new works, the expenditure on which amounted to rather more than Rs. 77,000. Out of this latter sum some Rs. 37,000 were spent on new roads,

cart tracks and bridges, the Northern and Southern Circles coming in for the largest share. In the Dángs 11½ miles of new roads were constructed and in North Thána 5½ miles. As regards the Central Circle, the question of the adoption of the extensive road construction scheme in the Koyna valley is now before Government. In West Kánara and Belgaum 16 miles of new roads and 18 miles of cycle paths were constructed. These works include the Kadra-Shivpur Road extension, which will ultimately facilitate the extraction of heavy timber from Gund and the Kalinadi valley. As an example of the remunerative character of some of these communication works, the instance of the Kanbargi road may be cited where an expenditure of Rs. 560 led to an immediate increase of Rs. 4,050 in the fuel revenue of the fellings affected. Under the head of buildings the only notable items were the construction of offices for the newly created ranges in North Thána, and of a dharamshala at Fort Songad in the Dángs for the accommodation of timber merchants attending the local auction sales. In Sind, where the river inundation plays such an important part in the management of the forests, the bulk of the expenditure was incurred on the provision of irrigating sluices and the repairing of protective embankments.

4. Turning to the question of forest protection, the number of forest offences of all kinds reported during the year was 22,200, being less than the previous year's total by 244, and less than the average of the preceding three years by 283. There were considerable variations from the previous year's figures in the Central Circle and in Sind, where in the former case, the number of offences rose by 633 and, in the latter, fell off by 768. But, on the whole, the figures for the year under review represent a fairly close approximation to the normal, as is evident from the fact that the maximum variation was only 120, this occurring in the Southern Circle where the total for the year was short of the average by that number. The respective totals of detected offences for which prosecutions were instituted and which were compromised show very little variation from the previous year's figures. The proportion of prosecutions to the total number of detected offences was 5 per cent., which cannot be regarded as excessive. As in previous years, this proportion was rather higher in the Central Circle, where protection is generally more difficult to enforce, the percentage in this case being 7 per cent. That prosecutions in the majority of cases are not instituted without careful inquiries and due discrimination may be inferred from the fact that 88 per cent. of those disposed of during the year terminated in the conviction of the accused. The Sukkur Division seems, however, to have been an exception in this respect, and Government cannot view with approval proceedings which resulted in as many as 23 cases out of 66 ending in acquittal.

Excluding for the present offences connected with the protection of the forests from injury by fire and cattle, there were reported during the year 10,376 cases of the unlawful appropriation of forest produce and 1,253 miscellaneous offences. The latter, which relate for the most part to breaches of forest rules, are comparatively unimportant and call for no comment. The former show a slight increase of 134 over the number for the preceding year, but the figures are of little value for purposes of comparison, inasmuch as they include undetected offences, the real number of which, as observed by the Conservator, N. C., is far in excess of that reported, which is consequently capable of almost indefinite expansion according to the activity of the forest staff. Excluding these, it appears that the number of detected offences of unlawful appropriation of forest produce rose from 7,930 to 8,105. The increase occurred chiefly in the Central Circle, where it is attributed in some degree to the evacuation of towns and villages on account of plague and to the consequent pilfering of the forest for the provision of materials required to construct temporary dwellings. In the other circles the variations are insignificant. With the exception of four cases which occurred in the Kánara forests and in which large quantities of timber were involved, the offences were individually of a comparatively trifling nature. Government note with satisfaction the good results in the matter of protection from forest thefts obtained by the establishment of retail depôts in localities where towns and villages are in close proximity to

forest areas. In the case of Bassein the existence of such a depôt has been attended by reduction in the annual number of offences from 172 to 89. In Kolába the adoption of this form of protection has proved a great success, both as a measure of public convenience and as a preventive of the abuse of the dead-wood privilege by the wild tribes, as may be inferred from the fact that in the course of the year nearly ninety lakhs of pounds of fuel and 1,874 agricultural implements were sold at the fifteen depôts established in this Division. The attention paid to the preservation of tahál was a contributing factor in this improvement.

5. With regard to the subject of the protection of the forests from injury by fire, it is to be noted that, although there was a slight increase from 1,939 to 2,053 in the total number of fires, the area burnt shows a remarkable reduction from 4,14,437 to 2,83,113 acres. This reduction occurred principally in the Southern Circle, where, in spite of a slight increase in the number of fires, the exceptionally large area of destruction of the preceding year, measuring 2,14,000 acres, was reduced to only 52,800 acres. In the Northern Circle and Sind also there was an improvement, though on a much smaller scale, as regards the area burnt, while in those charges the number of fires also was reduced. As regards the former of these circles and also the Southern Circle, the general explanation given of this improvement is the continuance of the rains late in the season which kept the forests in a moist condition, while in Sind a somewhat similar result was produced by the high inundation. The gradual disappearance of the highly inflammable dead bamboos is another cause which operated in certain forest tracts. It is satisfactory to note that in the Northern Circle the people are reported to be acquiescing to an increasing extent in the policy which aims at the prevention and curtailment of forest conflagration. In the West Thána Division there was a remarkable decrease in the extent of the damage by fire, while in the Tansa catchment area of East Thána the area destroyed by incendiarism, which has long been prevalent in this locality, was reduced by 50 per cent. None of the above-mentioned natural causes would appear to have been in operation in the Central Circle or, at least, they were insufficient to counteract other factors of an adverse character, for here both the number of fires and the area burnt increased considerably, the latter from 1,55,000 to 2,04,212 acres. This increase occurred principally in the North Khándesh Division, where the area burnt was as much as 1,24,000 acres, being double the area of the preceding year. The bulk of it was in the Akrani tract where the forests are entirely unorganized. Here three extensive conflagrations started almost simultaneously, an emergency with which the scanty population of the tract was unable to cope. It appears also that in certain villages of this division gross negligence and want of co-operation were displayed on the part of the people, a condition of affairs which necessitated the infliction of communal punishments in 23 villages. The problem of the fire protection of the Satpura forests, where the difficulties have hitherto been enhanced by the presence of large areas of forest land covered with tall grasses, a very scanty in-forest population, and the unregulated access into the forests of casual non-forest villagers, has received special attention, and Government have recently approved the adoption of a series of preventive measures which, it is hoped, will in course of time effect an improvement in the preservation of this tract from the devastating conflagrations which have hitherto periodically ravaged it almost unchecked.

In the Southern Circle the Commissioner dealt with the cases of 64 villages in which bad fires were reported, inflicting communal punishments where necessary and conferring rewards where assistance had been forthcoming in arresting the fires. Government cordially endorse the Commissioner's observations as to the necessity of the close association of rewards with punishments for the checking of forest fires. The general tendency is to depend too much on punitive action, to the exclusion of the hardly less serviceable policy of the distribution of rewards.

The total number of offences connected with injury to forests by fire amounted during the year to 2,018 against 1,889 in the previous year. Of these 1,656 remained undetected.

6. The question of the protection of the forest from injury by cattle stands on a different footing. Of the 14,989 square miles which represent the total forest area, only 2,442 square miles or 16 per cent. were kept entirely closed to cattle during the year. Of the remaining area, 28 per cent. was open for grazing to all animals, and 72 per cent. was closed to browsing animals while being open to grazing animals. As a general result of the favourable rains, the number of cattle impounded fell from 1,42,970 to 1,31,455, the latter figure, however, closely approximating to the average of the preceding three years. The decline was common to all four circles, though proportionately more marked in Sind, the preceding rainless season in the Kohistan and defective inundation in the Indus valley having produced temporarily an abnormal rise in the number of impoundings. As regards the Thána divisions, the Conservator considers that there has been a general improvement in the prevention of cattle trespass, and that this tendency is likely to be accentuated as a result of the revision of the working plans which introduces a new system of closure. He observes, however, that in the Panch Mahâls the figures of impoundings show little diminution from those of the previous year, when they rose abnormally owing to fodder scarcity, and he apprehends that unless special vigilance is exercised, the increased tendency of cattle-owners to invade the forests will be perpetuated. The Conservator, C. C., notes some improvement in the readiness of owners to pay their grazing fees punctually, but observes that attempts at evasion are still undesirably common, 17,708 animals, for instance, having been charged at double rates in the Poona Division alone owing to their owners having omitted to pay fees until the animals were actually caught. In the Southern Circle special measures were taken to repress illicit grazing by sheep in closed areas, and the number of impoundings of these animals rose from 222 to 1,080. The temporary cattle pounds established in certain Sind forests to deal with the half-wild cattle which infest them do not seem to have been very successful, only 293 of these animals being impounded during the year. The Deputy Conservator thinks that the only remedy is to insist on all cattle being folded at night, but it is not clear how such a requirement could be enforced.

The aggregate receipts for the whole Presidency in the shape of grazing fees amounted to Rs. 3,41,478, against Rs. 3,19,710, the total for the previous year. The reason for the considerable increase of revenue is not apparent, as although the number of cattle which paid grazing fees at privileged rates rose by fifty thousand, the resulting increase in fees might be expected to have been counterbalanced by the decline of thirty thousand in the number of cattle that paid full rates. The number of cattle that were admitted into the forest free of charge rose from 5,41,769 to 5,92,230. That the measures taken for the protection from cattle do not press hardly on the people may be inferred from the fact that as against a total of 2,231,561 head of horned cattle which grazed in the forests either free or on payment, the number of impoundings of such cattle was 79,097, or only 3·5 per cent.

The number of offences reported in connection with the illicit grazing of cattle declined from 9,074 in the preceding year to 8,550 during the year under review.

7. The special protective measures taken during the year against injury to the forests from natural causes included the cutting of creepers, especially *lantâna*, the eradication of prickly pear, the removal of choking growth from teak seedlings, the construction of *tals* for the prevention of soil erosion, the planting of *zili* on the banks of rivers to prevent their being cut away, and the construction of groins on the sea shore for the protection of casuarina plantations from the inroads of the sea. The *tal* operations in Poona and Sátára are reported to have given highly satisfactory results in the production of suitable plots for artificial plantation. Wild elephants and pig caused some damage to the Kánara forests, while rats and porcupines proved destructive in Sind. The Jerruck forests of the latter circle suffered extensively from damage by caterpillars. This pest also attacked the casuarina plantations of the Southern Circle. A large number of seedlings in the plantation at Umbargaon in the Northern Circle were destroyed by moths.

8. The climatic conditions of the year were everywhere favourable for natural reproduction from seed. In the Thána forests very encouraging results were obtained from the efforts to establish natural seedlings by tending. In the Southern Circle the seeding of teak and other valuable species is reported to have been highly satisfactory; the unusually abundant teak seedlings of 1915 are also stated to have come up well after lying dormant during 1916. In Lower Sind the admission into the forests in the previous year of large numbers of famine-stricken cattle had caused the wide dissemination of babul seeds, and the areas affected were carefully closed to browsers with a view to the protection of the resultant seedlings. Coppice reproduction was also generally satisfactory, an exception, however, being the *anjan* in Khándesh. In respect to this species, at the suggestion of the Inspector General, experiments based on the practice obtaining in the Central Provinces will be undertaken in the hope of securing more abundant reproduction.

As regards artificial reproduction, the total area under plantations was extended during the year from thirty-eight to seventy thousand acres, and progress was made in various directions. The Conservator, C. C., gives a most encouraging account of the development and results of the operations undertaken in the Poona, Sátára and Kolába Divisions for mulching and tending seedlings, both naturally and artificially planted, and considers that the experiment, which had its inception in Kánara, has now reached a stage which will justify expenditure on a large scale in extending its scope. Notable results have been achieved by these means in Kolába and Poona in the way of establishing young plants. In the Kulgi range of North Kánara some three lakhs of plants were successfully transplanted. In Sind the experiment was started of growing the wild hill olive with a view to grafting on in the European olive, which is not expected to grow successfully from seed in Sind conditions.

With regard to the question of the improvement of growing stock, it is noted that, on the advice of the Inspector General, provision will now be made in the working plans of the Khándesh teak forests, which are reported to contain much stunted and unsound material left by the coupe contractors, for its departmental removal after the coupe fellings have taken place. In the Southern Circle improvement fellings and similar operations were carried on vigorously.

9. With regard to the exploitation of the forests the quantities of timber and fuel extracted otherwise than for free grants or for the benefit of privilege holders amounted in thousands of cubic feet to 43,538 units, as against 41,829 in the previous year. Of the former quantity 86 per cent. was extracted through the agency of contractors, departmental agency being resorted to on an extensive scale only in the Southern Circle, where it accounted for rather less than half the total quantity extracted. As regards this departmental extraction, the West Kánara Division was mainly responsible for the total increase of 568 thousands of cubic feet, unusually large quantities of teak and fuel having been taken out of these forests for war purposes and for the railway respectively. The rate of teak extraction from the Gund range will be much accelerated when the improvement of communications with the Kodibág depôt, referred to in a previous paragraph, is completed. A novel feature was the extraction in the Kánara and Belgaum Divisions of bamboos worth Rs. 11,712 for supply to the Military Department.

The two Government saw mills in North Kánara gave better results this year, the value of the outturn being Rs. 96,286 against Rs. 57,360 in the previous year. Three new saw mills were purchased at the close of the year, one being set up in each of the other three Kánara divisions.

10. The financial results of the year are noteworthy. Excluding revenue and expenditure in connection with famine operations, the gross revenue realized during the year amounted to Rs. 58,15,378, while the expenditure was Rs. 25,67,500, the net revenue thus showing an advance of nearly ten lakhs on the results of the previous year and of twelve lakhs on the average of the preceding five years. In the Northern Circle, while there was some reduction of expenditure, the receipts rose by Rs. 4½ lakhs. A large proportion of this increase, however, was adventitious, being due to the sale of teak standards in

the Thána divisions in accordance with the newly adopted system of clear felling and also to more extensive sales of gurcharan and malki teak. In the Central Circle the surplus revenue rose by nearly a lakh in spite of some increase of expenditure. This was chiefly due to the improved condition of the timber and fuel market in Khándesh, the stagnation of the previous year having entirely disappeared. In the case of the Poona Division the receipts were higher than they have ever been, among the reasons for this result being the special care bestowed on the collection of grazing fees and the high prices realized by the sale of tarwad bark. The Southern Circle had a record year with a gross revenue of Rs. 23½ lakhs and a surplus of Rs. 11 lakhs, the latter being in excess of the previous year's surplus by Rs. 2½ lakhs. Although, owing to the purchase of the saw mill machinery already referred to and the increased wages paid for departmental extraction, the expenditure of the Circle rose by a lakh, the proportion of net to gross revenue increased from 43 to 47 per cent. The rates of all classes of timber kept high, record prices being realized at the teak sales in North Kánara. The increased material which, as already noticed, was extracted from the West Kánara forests also contributed to these results. It is observed that the outstandings of revenue in the case of the Southern Circle are very high, having risen to nearly Rs. 6 lakhs. Government hope that the recovery of these arrears is engaging the attention of the Conservator. In Sind both the gross and the net revenue rose by a lakh and a half.

The above results may be regarded as eminently satisfactory having regard to the adverse effects of the general dislocation of trade in war conditions and the difficulties experienced in respect of railway and other transport.

11. Considerable progress was made in the direction of experiment and research. The products obtainable from the *salai* tree in the shape of resin and turpentine have been favourably reported on for commercial purposes, and the possibility of making the gum derived from the tree suitable for commercial mucilage is under investigation. As the tree is extremely abundant in the Satpuras and is favourably situated for exploitation, there is the prospect of the future establishment of an important industry in connection with its products. The experiments made in the Belgaum Division in the production of charcoal indicate that, so long as the existing primitive methods of manufacture are adhered to, there is little prospect of any important development of the industry. As pointed out by the Commissioner, S. D., resort to dry distillation is essential for such development. The teak and *jamba* blocks supplied to the Bombay Municipality have successfully emerged from the ordeal of exposure during the monsoon to the heaviest cart traffic of the city. These blocks, it may be anticipated, will prove excellent paving material for streets. The experiments in connection with the utilization of *matti* wood for railway sleepers are still proceeding.

12. The adverse conditions under which the Department has for some time been working owing to the increasing shortage of its superior staff consequent on the withdrawal of officers for military duties have imposed a severe strain upon its resources during the year. It is apparent from the several reports that considerable difficulty also has been experienced in maintaining the subordinate staff at full strength, and in obtaining from it a proper standard of work and efficiency in the abnormal and unsettling conditions now prevalent. The number of Rangers has been admitted to be defective, and Government have recently sanctioned a considerable addition to their strength. That notwithstanding these unfavourable influences and exacting conditions the generally satisfactory results described in this review should have been obtained is a circumstance which, in the opinion of the Governor in Council, reflects no little credit on the administration of the Department and on the zeal and efficiency of the officers concerned.

A. F. L. BRAYNE,
Under Secretary to Government.

G. R. No. 6309, R. D., dated 7th June 1918.

To

*The Commissioner in Sind,
*The Commissioner, N. D.,
*The Commissioner, C. D.,
*The Commissioner, S. D.,
*All Collectors, including the Deputy Commissioner, Upper Sind Frontier,
*The Director of Agriculture and of Co-operative Societies,
*The Chief Conservator of Forests, Bombay Presidency,
The Conservator of Forests, N. C.,
The Conservator of Forests, C. C.,
The Conservator of Forests, S. C.,
The Deputy Conservator of Forests in charge Sind Circle,
*The Settlement Commissioner and Director of Land Records,
*The Accountant General,
*The Compiler, General Administration Report,
*The Oriental Translator to Government,
*The Public Works Department of the Secretariat,
*The Separate Department of the Secretariat (for the Reading Room for the Honourable Members of the Legislative Council),
*The Editors' Tables and Editors of Newspapers,
†The Government of India,
†The Under Secretary of State for India.

*With copies of the Report.
†By letter.

No. of 1918.

Copy forwarded for information and guidance to

ADMINISTRATION REPORT

OF THE

FOREST CIRCLES IN THE BOMBAY PRESIDENCY

(INCLUDING SIND)

FOR THE YEAR 1917-18.

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ADMINISTRATION REPORT OF THE FOREST CIRCLES IN THE BOMBAY PRESIDENCY, INCLUDING SIND, FOR THE YEAR 1917-18.

CONSERVATORS IN CHARGE OF CIRCLES DURING THE YEAR :—

Northern Circle.

W. F. D. Fisher, Esquire.

Central Circle.

O. H. L. Napier, Esquire.

Southern Circle.

T. R. Bell, Esquire, 1st July 1917 to 16th December 1917.

W. E. Copleston, Esquire, 17th December 1917 to 30th June 1918.

Sind Circle.

G. R. Duxbury, Esquire, 1st July 1917 to 20th December 1917.

H. L. Newman, Esquire, 21st December 1917 to 22nd January 1918.

D. A. Thomson, Esquire, 23rd January 1918 to 30th June 1918.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

Northern Circle.

Class of Forest.	Area on 1st July 1917.		Added during the year.		Excluded during the year.		Area on 30th June 1918.	
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
Reserved ..	3,017	566	4	490	1	487	3,020	569
Protected ..	813	293	0	217	0	481	813	29
Total ..	3,831	219	5	67	2	328	3,833	598

The disforestments were on account of —

(1) Boundary improvement;
(2) Transfers of land to the G. I. P. Railway for sidings, etc.;
(3) Transfer to the Irrigation Department;
(4) Land for cultivation.

The other changes in area were due to the mistakes rectified on comparison of forest and settlement registers.

Central Circle.

There was a net decrease in the forest area during the year of 2 square miles 391 acres, the total at the commencement standing at 5,400 square miles 239 acres and at the close at 5,397 square miles 488 acres. 221 acres were added to reserve, 2 square miles 612 acres were disforested; of the latter, 1,453 acres were pasture in charge of the Revenue Department and were disforested for cultivation, while 288 acres were from forest proper and were required for the use of the Kirkee Military Dairy Farm.

Of the total 5,397 square miles 488 acres, 3,731 square miles 4 acres were in charge of the Forest Department, 1,666 square miles 484 acres were under the management of the Revenue Department.

Southern Circle.

The total area of the circle was only slightly changed during the year, being increased by 367 acres as under :—

Class of Forest.	Area on 1st July 1917.		Added during the year.		Excluded during the year.		Area on 30th June 1918.		Remarks.
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
Reserved ..	4,449	473	0	540	0	267	4,450	200	
			*0	100	*0	6			* Rectifications of errors.
Protected ..	133	286	....		....		133	286	
Total ..	4,583	119	1	0	0	273	4,583	486	

Additions to reserved forest occur mainly in the Kánara Northern and Eastern divisions and Belgaum, and are mostly isolated waste lands surrounded by extensive forests. Disforestments in Kánara, Dhárwár and Bijápur were for agriculture.

The following areas were transferred from the management of the Revenue Department to that of the Forest Department :—

	Sq. miles.	Acres.
Pasture forests of the Parasgad táluka in the Belgaum district	43	153
Pasture forest of the Hángal, Kod, Hubli, Karajgi and Ránebennur tálukas in the Dhárwár district	46	440
Pasture forests of the Bágalkot and Bágewádi tálukas in the Bijápur district	7	570
Total ..	97	523

The area in charge of the Forest and the Revenue Departments after the above changes stood as under :—

	In charge of Forest Department.	In charge of Revenue Department.
	Sq. miles.	Sq. miles.
Kánara Northern division	426	..
Kánara Eastern division	589	4
Kánara Central division	833	..
Kánara Southern division	708	..
Kánara Western division	828	..
Belgaum division	680	2
Dhárwár-Bijápur division	343	151
Ratnágiri division	19	..
Total, Southern Circle ..	4,426	157

Under Government Order, Revenue Department, No. 5205 of 30th April 1918, the forests of the Ratnágiri division were transferred to the Revenue Department with effect from 1st July 1918.

Sind Circle.

The alterations in area were :—

Class of Forest.	Area on 1st July 1917.		Added during the year.		Excluded during the year.		Area on 30th June 1918.	
	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
Reserved ..	1,173	228	9	460	24	20	1,159	28
Protected ..	0	585	....		....		0	585
Total ..	1,174	173	9	460	24	20	1,159	613

The additions comprise—

	Sq. m.	Acres.
Alluvial accretion	9	371
Reservation by notification	0	89
Rectification on re-survey		..
Total ..	9	460

The exclusions were—

	Sq. m.	Acres.
Erosions	24	20
Disforestment or transfer		..
Rectification by re-survey ..		..
Total ..	24	20

The eroded area is classified as follows :—

	Acres.
Growing valuable timber	3,523
New alluvium without trees	6,290
New alluvium with young growth	3,351
Coupes under regeneration	778
Blanks	1,258
Total ..	15,200

In the previous year the total erosion was 11,866 acres.

The value of the material exploited from eroded areas (*vide* Government Resolution No. 804 of 2nd February 1900) was—

	Acres.			
Approximate area eroded after exploitation ..	2,830			
		Rs.	a.	p.
Average value per acre		10	3	11
Estimated value of timber before exploitation ..		28,997	0	0
Actual receipts		28,949	0	0

Contractors paid the price asked by the Department.

One hundred and fifty-three acres in the Karáchi division and 216 acres in the Hyderabad division containing growth valued at Rs. 2,000 and Rs. 4,389 respectively were eroded before exploitation was possible, despite the fact that the river bank had been cleared for a considerable distance in anticipation. Owing to an abnormal rise of the river at the end of the inundation season in 1917 and a sudden rise of the river at the commencement of the hot weather of 1918, the changes in the river were sudden and erosion so rapid that 5,058 acres 20½ gunthas of forest land threatened had to be exploited as compared with 1,760 acres in the previous year. The resultant material realized Rs. 80,679 or approximately Rs. 16 per acre as compared with Rs. 7 in the previous year; careful estimation coupled with the increased demand for overseas military fuel caused the increase realized.

Acquisition of kachas adjoining forests :—

	No.
Kacha claims pending at the end of last year ..	12
New claims made during the year	21
Decided in favour of the Forest Department ..	18
Decided against the Forest Department ..	*Nil.*
Claims withdrawn ..	1
Claims still undecided	15

Twenty-three acres were temporarily alienated during the year to other departments; of these one acre and two gunthas were handed over to the Military Department for the excavation of a "Karia" in the Lakhi forest of the Shikárpur division.

2.—Forest Settlements.

Northern Circle.

These are complete, but the settlement of the Peint táluka made in 1887-88 requires revision as soon as possible.

Central Circle.

Trifling areas of 221 acres were added to the forests during the year. Outstanding work consists of the final notification under section 19 of the Forest Act of some 15,000 acres in the Nawápur and Nandurbár ranges of West Khándesh, for which preliminary notifications under section 4 and (for part of the area) under the Land Acquisition Act were issued in the previous year.

Southern Circle.

Five hundred and forty acres were notified as reserved under section 19 and 1 square mile and 123 acres under section 4 of the Forest Act.

No progress was made in settlement as contemplated in previous reports.

The question of afforesting waste numbers situated in the midst of extensive forests was much discussed and finally the Commissioner, Southern Division, decided that where it is desirable to settle people on the land to provide forest labour the waste numbers should be afforested and then given out for cultivation by the Forest Department at nominal rents. Certain waste numbers in Kánara Northern division have been recommended for afforestation in accordance with these orders.

Sind Circle.

	Acres.
Area awaiting settlement at the commencement of the year	286
Of which—	
Area actually settled under section 19 of the Indian Forest Act	89
Balance awaiting settlement	165
Exclusion of land in Shah Bukhari forest, Hyderabad (papers recorded by the Commissioner in Sind) ..	32
Total ..	286

Expenditure incurred Rs. 6-6-0.

Steps have been taken to secure the settlement of a large area of " Kacha " lands of over five years' standing in the Karáchi and Hyderabad districts which had been awarded in the past to this Department, but have hitherto remained unnotified.

3.—DEMARCATION.

Northern Circle.

Owing to changes in Divisional Officers and shortage of staff, work was limited to upkeep.

Central Circle.

Hundred and eight miles of new boundary in the Rájur range of the Poona division were demarcated at a cost of Rs. 852, leaving 16 miles to be undertaken in the coming season for the completion of all outstanding work throughout the circle. Rs. 2,775 were spent on the maintenance of 12,898 of boundaries previously demarcated.

Southern Circle.

Thirty-one miles of important frontier boundaries were demarcated as under :—

	Miles.	Cost.	Cost per mile.
		Rs.	Rs.
The Mysore State frontier line in the Kánara Southern division.	13	660	51
The Portuguese Territory frontier line in the Kánara Western division.	2	109	54
The Sávantwádi State frontier line in the Belgaum division.	16	510	32

The cost per mile is about the same as last year in the case of the first two lines and nearly half in the case of the third line.

Seven hundred and thirty-eight miles of old lines were repaired in all divisions at a cost of Rs. 822 under the supervision of guards as usual.

Owing to the transfer of pasture forests from the Revenue to the Forest Department in Belgaum and Dhárwár-Bijápur, referred to in section (1) above, the boundary lines of those divisions were increased by 136 and 157 miles respectively.

Sind Circle.

Internal boundaries.—The forests are divided into half mile squares by rides 20 feet wide.

Fourty-one and a half miles of new compartment lines were cut during the year, of which 34 miles free by privilege holders; 7½ miles in Lárkána division, cost Rs. 150.

Two thousand eight hundred and thirty-eight and quarter miles of previously cut rides were kept clear by free labour valued at Rs. 5,677.

Sixty-four thousand seven hundred and seventy acres of "Kacha" lands still remain to be divided up into compartments; they contain mostly young lai growth (*Tamarix gallica*) and when it develops sufficiently they will be taken in hand. Some arrear work still remains in the Hyderabad and Lárkána divisions, where steps are being taken to have the work brought up to date as soon as possible.

External boundaries.—Seven miles 3,020 feet of external boundaries were demarcated with 147 new boundary marks during the year. 18,540 old boundary marks on 2,029 miles 2,524 feet of line were repaired free of cost.

4.—Forest Surveys.

Northern Circle.

None were carried out.

The total expenditure under "Constitution of State Forests" was Rs. 6,260 as against Rs. 2,200 in 1916-17. The expenditure was on account of compensation for land acquired for roads under construction.

Central Circle.

None were carried out.

The total expenditure under "Constitution of State Forests" was Rs. 4,472 as against Rs. 8,625 in 1916-17.

Southern Circle.

There were none.

The total expenditure on "Constitution of State Forests" was Rs. 5,471 as against Rs. 12,586 last year.

Sind Circle.

None were carried out.

The total expenditure on "Constitution of State Forests" was Rs. 122 as against *nil* in the previous year.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulaton and Management.

(*a*) *Preparation and Control of Regular Working Plans.*

Northern Circle.

Owing to the shortage of officers no new or revision work could be taken up.

Owing to the desirability of the Chief Conservator of Forests visiting the Thána forests the submission of the Thána working plan was postponed and later sickness and pressure of work has caused further delay. Its submission is now hoped for by Christmas.

The Peint working plan requires revision at an early date; the Divisional Forest Officer, South Násik, in whose charge the Peint forests are and who has the Working Plans division also, will collect data during the coming season.

Prescriptions of working plans were fairly carried out in other forests of the circle except in North Dángs, where, owing to munitions supply and lack of labour and carting facilities, work is two years in arrear.

Central Circle.

Preparation.—No new plans were sanctioned during the year, and the organized area remained as before, *viz.*, 2,296 square miles or 61·6 per cent. of the reserved forest area in charge of the department.

The combined plan for the Sátpuda forests of the North and East Khándesh divisions, comprising a revision of three existing plans, was completed on the lines recommended by the Inspector General of Forests, has been accepted as suitable by the Collectors of the two districts, and is on the point of submission to the Chief Conservator and to Government. Its main provisions have already been put into force.

Completion of the revised plan for the forests of the Poona division, comprising 320 square miles under six existing plans and 245 square miles of hitherto unorganized areas, was unfortunately delayed by the transfer to Sind of Mr. Thomson who as Divisional Officer in Poona for the previous five years had undertaken the revision; it is hoped that this plan may be received from him shortly.

Field work by the Working Plans Officer was interfered with by his having to hold additional charge of the West Khándesh division during part of the season but, on relief from that duty he was engaged in collecting information required by Mr. Thomson for the Poona plan, and, later, in field work for the revision of the Mátherán plan, the latter being necessitated by the ever-increasing demand for fuel for the supply of that hill station, concurrently with the reduction in the forest area that every extension of building creates.

New work in the current season is likely to be in abeyance owing to shortage of officers, but there are no unorganized areas in the circle for which plans are urgently required. In West Khándesh it is true there is a considerable area, shortly to be added to, of unorganized teak bearing forests, but the clearance of adjoining waste lands must be completed before they can be brought under working; they can then be organized simultaneously with the revision of some existing plans. The question of the revision of the Kolába teak forests working plan is one that must come up for consideration before long, for which the experience of the working of the revised Thána plans will be valuable as the forests of the two districts are similar in general type though the quality of those in Kolába is inferior.

Control.—The prescriptions of existing plans were in the main carried out, though not in all divisions, notably the Khándesh ones, with all the thoroughness that could be desired; fodder operations for the Army interfered considerably in West Khándesh with the labour supply, while the failure of the cotton crop which is so important a factor in the demand for the material of all the Khándesh forests, resulted in many coupes being incompletely worked.

Southern Circle.

Preparation.—No new working plans were sanctioned during the year. The following three plans were, however, submitted for sanction of Government, No. 1 during the year and Nos. 2 and 3 shortly after the close of the year :—

(1) The Arbail Slopes plan,

(2) The Kalghatgi range plan,

(3) The Bankápur and Hangal ranges plan.

Owing to shortage of officers field work and the revision of working plans were held in abeyance and charge of the office was held by the Conservator from 20th January 1918.

Control.—The provisions of existing plans were carried out as far as the supply of labour would admit. As will be seen from the statement annexed to Form No. 11, some work is in arrears, particularly in Belgaum, Kánara Western and Eastern divisions. In several working circles, the working plan prescriptions had to be departed from to allow of special fellings for the supply of timber, etc., for war purposes.

Sind Circle.

Preparation.—The revised working plan for the forests of the Hyderabad division was sanctioned by Government in Government Order, Revenue Department, No. 8820 of 19th July 1917.

The field work in connection with the existing working plan of the forests of the Sukkur and Shikárpur divisions was completed during the year. The revised working plan for the Lárkána division was prepared by the Working Plans Assistant, but, as the forests of the Sukkur, Shikárpur and Lárkána divisions are similar in composition and quality of the growing stock and as the method of treatment to be adopted is common to all, it has been decided with the approval of the Chief Conservator of Forests, Bombay Presidency, to combine the revision of the existing plans for these divisions into one and the same plan to be known as the working plan for the Upper Sind forests. Apart from the economy in labour and paper secured thereby, this is in accordance with the opinion expressed by the Inspector General of Forests during his tour in Sind in connection with the Hyderabad and Karáchi Working Plans which could well have been included in one plan for the reasons stated above. The revised working plan for the Upper Sind forests is ready for criticism by the Deputy Conservator of Forests during the ensuing touring season.

Control.—The prescriptions of existing working plans were duly carried out with minor deviations due to the shortage of labour.

(*b*) *Preliminary Working Plans.*

Northern Circle.—*Nil.*

Central Circle.

With the exception of the Sátpuda plan above referred to, none were drawn up.

Southern Circle.

The following four plans are being prepared by the Divisional Forest Officers, Kánara Eastern division and Belgaum :—

(1) Revised plan for Block XIII in E. D. Kánara.
(2) Revised Khánápur Fuel plan in Belgaum.
(3) Revised Golihalli-Godoli plan in Belgaum.
(4) The Belgaum Range plan in Belgaum.

Sind Circle.

There were none.

(*c*) *Plans of Operations.*

Northern Circle.

These were duly prepared and submitted by the Divisional Forest Officer. There was no important deviation from them.

Central Circle.

These were duly prepared and carried out.

Southern Circle.

Plans of operations were prepared in all divisions and carried out as far as possible. Unremunerative works such as buildings and wells were postponed with a view to economy, special attention being directed towards war supply fellings and other remunerative works.

Sind Circle.

These were prepared in all divisions and carried out as far as possible.

2.—Communications and Buildings.

(*a*) *Roads and Bridges.*

Northern Circle.

New roads were constructed in—

Surat Division—	Rs.
Bhawandagad-Borkhal, 3½ miles	2,905
Málegaon-Chipghat, ½ mile	328
Aherdi-Surgana, 3½ miles	1,995
Malegaon-Jharia, 3 miles	1,666
Kevdi to Bhensi, 2 miles Sursi to Chelvas, 6 miles	714

	Rs.
North Thána—	
Continuation of Kase-Udhwa, 2½ miles ..	2,506
West Thána—	
Continuation of Potgaon-Badalapur, 7½ miles ..	3,968
East Thána—	
Susarwádi-Botara, 1¾ miles	940
Deoband-Kurlod, 3 miles	326
Ujani-Akhada, ¾ mile	775
South Násik—	
Bahepada-Cahaukada, 9 miles	740
Khadakphol to Ozar, 2 miles	1,558
Total, new works ..	18,421
Total repairs throughout the circle ..	9,102
Grand total, roads ..	27,523

Central Circle.

The total expenditure under this head was Rs. 11,019 as against Rs. 10,086 in 1916-17, 7 miles of new roads being constructed, or partially so, at a cost of Rs. 4,046, while 319 miles of existing roads and bridle-paths were kept in repair at a cost of Rs. 6,973.

In North Khándesh the Hisala-Bhoiti road was extended, improved and metalled in some places. The Wasardi-Kodit road was extended for 1½ miles towards Malkatar, its ultimate destination, and spread with muram. The Rámpur-Karwandpani bullock track was levelled and made fit for cart traffic over a distance of 2¼ miles, a work which will much facilitate exploitation of the adjacent forests. One hundred and six miles of bridle-path either in or leading into the Akrani were repaired at a cost of Rs. 1,076.

In East Khándesh, no new work was undertaken, merely improvements to the more difficult tracks in the Sátpudas. A special surveyor was engaged for part of the year on aligning new roads, but the work in this exceedingly rugged country proved beyond his capacity and, falling ill, he resigned without having accomplished anything of value. Road conditions in these hills are as bad as they can well be, and no real progress with the development of the forests is to be looked for until they are improved; but the difficulties both as regards the nature of the country and the supply of labour are so great that nothing but the services of a professional engineering staff will ever overcome them. It must certainly be confessed that there is little to show for the money and labour that the Forest Department has expended in past years.

In West Khándesh all that could be done was to keep existing roads in repair —the whole energies of the forest staff were concentrated on the supply of grass to the army.

In Poona the work of converting the Lonávla-Bhimashankar bridle-path into a cart track was continued over a distance of 4 miles.

In Sátára repairs to the Vang valley road were carried out, but in the Koyna valley expenditure was reduced to a minimum in view of the possibility of the introduction of a Tata scheme which would submerge the whole valley.

In Kolába the very few miles of existing roads were kept in repairs.

Speaking generally, there is no great scope for road extension in the circle, excepting in the North and East Khándesh divisions. Fair weather roads lightly muramed or metalled are provisionally required; careful alignment is a necessity and herein lies the difficulty in these rugged hills.

Southern Circle.

Twenty-seven miles of new roads including bridges and 4 miles of bridle-paths were constructed during the year at a cost of Rs. 57,257 and Rs. 39, respectively, as under :—

Division.	Name of road.		Distance.		Cost.
			Miles.	Furl.	Rs.
Kánara, N. D.	Haliyal-Kavalwad road ..	Special repairs.	2	0	2,450
	Mavinkop-Kalkeri road ..		1	0	1,898
	Tavargatti-Depot road ..		1	0	1,115
	Kalgatgi-Kavalwad road ..		2	0	5,878
	Fansoli-Bavla road ..		3	0	1,308
Kánara, C. D.	Hattikeri-Gule road ..	Do.	3	0	2,293
	Challibhavi road ..		0	2	630
	Alkod-Sandolli road ..		1	2	393
	Bhedisgaon-Chipgeri road ..		0	4	263
Kánara, W. D.	Bargadda-Goyar road		2	6	1,300
	Tamange Ghát road		1	0	1,050
	Gund-Wagale road		1	1	866
	Kadra-Holegadda road		4	4	22,619
Belgaum ..	Gunji-Shiroli road		4	0	15,194
	Total for 1917-18 ..		....		57,257
	Total for 1916-17 ..		....		18,460

Of the above, the last 5 are new. The Kadra-Holegadda road with its branch up the Tamange Ghát to Gund is the most ambitious road work yet undertaken by the department in Kánara. It will be useful for extraction of valuable timber from Gund plateau and the Kali-nadi valley and will prove a remunerative work. The alignment was laid out by Mr. Marjoribanks and runs through difficult country with precipitous slopes. The progress made during a season of scarcity of labour and the economy with which the work was carried out is most creditable. A lot of bridge work remains to be done and many improvements have still to be carried out before it becomes serviceable for heavy timber traffic throughout its entire length of 28 miles from Kadra to Holegadda. The main expense on the Gunji-Shiroli road which passes over comparatively flat country is due to the construction of bridges.

Besides the above, 346 miles of roads and paths were repaired at a cost of Rs. 51,837.

The annual contribution of Rs. 10,000 hitherto paid in equal parts by the Divisional Forest Officers, Northern and Western Kánara, for repairs of Local Board roads in Kánara was raised to Rs. 25,000 at the close of the year by Government Order, Financial Department, No. 1664 of 27th April 1918. The revised contribution will be payable from the year 1918-19 as under :—

	Rs.
The Divisional Forest Officer, N. D., Kánara ..	10,000
The Divisional Forest Officer, W. D., Kánara ..	10,000
The Divisional Forest Officer, E. D., Kánara ..	5,000

In Belgaum, the Suldhal-Benchinmardi road was taken over from the Local Board during the year.

The construction of the Alnawar-Dandeli forest railway line for the extraction of timber was commenced by the Madras and Southern Maratha Railway Company in the month of December and work was in progress at the close of the year. The work proved much heavier than was estimated. As contractors were unable to supply sufficient labour, Turkish prisoners were employed. Cuttings through rock which was difficult to blast delayed the work considerably. The railway will be open to traffic for the coming season.

A sum of Rs. 2,75,444, part cost of the railway, was debited to forests during the year.

Sind Circle.

There are no works necessary under this head in Sind as water transport is usually resorted to, but the 20 feet rides throughout the forests are used to convey forest produce to the river banks, etc.; these were repaired free of cost in all divisions.

(*b*) *Buildings.*

Northern Circle.

	Rs.
Surat (Dángs)—	
Rest-house at Galkund (part)	681
Range quarters at Galkund (part)	950
2 halt sheds at Dholidhol and Bhawandagad ..	866
North Thána—	
Range Forest Office and quarters at Sanjan ..	5,103
4 guards' posts	8,724
Completion of three Range Forest Offices and quarters built last year	1,336
Purchase of material for guards' posts to be built during 1918-19	498
West Thána—	
Purchase of material and construction of guards' kacha post	427
East Thána—	
Fuel depot house at Igatpuri	228
South Násik—	
Purchase of material for the buildings to be constructed during 1918-19	1,221
Total, New works ..	20,034
Contribution towards the construction of Revenue "Chavdis" in the Thána district ..	1,037
Repairs to existing buildings throughout the circle	4,878
Grand total ..	25,949

Central Circle.

Rupees 18,500 were spent on new works and Rs. 2,579 on repairs as against Rs. 250 and Rs. 2,188 in 1916-17. Quarters for the range officers were built at Nawápur in West Khándesh, and at Dahigaon in East Khándesh and, at the latter place, the new head-quarters of the Yáwal range, a range office and buildings for the staff were also constructed. Guards' quarters were built in Poona (3) and in North Khándesh (2). In Sátára a fuel shed was built at the Mahábleshwar depôt. The rise in prices of building material made it extremely difficult to carry out these works within the sanctioned amounts.

Southern Circle.

The following new buildings were constructed:—

		Rs.
Kánara, N. D. ..	Buildings at Dandeli for the use of the depôt and mill staff under construction	2,736
	Additions to motor sheds at the Haliyál and Dandeli bungalows	453
Kánara, E. D. ..	Quarters for the Divisional Forest Office clerks at Yellápur nearly finished	5,465
Kánara, S. D. ..	A kacha (temporary) rest-house at Ullur ..	118
	A temporary guard's house at Nagarbastikeri ..	17

		Cost. Rs.
Kánara, W. D. ..	A temporary guard's house at Mallapur and Kodsalli	40
Belgaum ..	Temporary huts for guards	193
Dharwár-Bijápur.	A small house for the Range Forest Officer, Badami	240
	Total for 1917-18 ..	9,262
	Total for 1916-17 ..	2,227
	Total for 1915-16 ..	12,439

The expenditure on buildings has been curtailed from year to year for the sake of economy. Many buildings are urgently required.

Current repairs to buildings were done as usual at a total cost of Rs. 5,557.

Sind Circle.

The urgent construction of an inspection bungalow at Khanote in the Hyderabad division was undertaken and completed during the year at a cost of Rs. 3,400.

Repairs to existing buildings cost Rs. 3,336, whilst the Public Works Department spent Rs. 132 on repairs to buildings in Sukkur.

(*c*) *Miscellaneous.*

Northern Circle.

	Rs.
Completion of 3 wells commenced last year and 7 new wells commenced	2,975
Repairs to existing wells	403
Repairs to hedges of compounds	31
Total Miscellaneous ..	3,409

Central Circle.

Rupees 350 were spent on the preliminary work for two wells in East Khándesh; repairs to existing wells cost Rs. 89, and wire fences round the casuarina plantations in Kolába Rs. 33.

Southern Circle.

The expenditure under this head was Rs. 10,677. Rs. 6,594 were spent on the construction of a waterway in the Kaneri and the Kali-nadi Rivers for floating timber from Gund to Kodibag depot in continuation of the operations by the special Engineer last year. The experimental dams erected in the Kaneri river did not withstand the monsoon floods. This river is a mountain torrent. Blasting obstructing rocks down the centre of the stream to enable elephants to bring the logs down proved useful. This work was continued in the dry season.

New wells at Chitgeri and Kalkeri in Kánara E. D. and at Hangal in Dhárwár-Bijápur division were completed. Others were commenced at Mundgod, Wadgatta and Sanvalli in Kánara E. D., and that at Nagargali in the Belgaum division, commenced last year, was continued. The remaining expenditure was on repairs to existing wells and tanks, clearing compounds, fencing rest-houses and other buildings.

The telephone connections between Yellápur and Kirwatti in Kánara E. D. and between Tavargatti and Dandelli in Kánara N. D. were maintained.

Sind Circle.

New minor irrigation works were undertaken during the year by the department at a cost of Rs. 1,411 as under:—

	Rs.
Construction of a bund in the Sukkur range ..	122
Construction of 4 sluices in the Khathar and Khatro forests of the Karachi division ..	1,289
Total ..	1,411

Repairs to existing works cost Rs. 3,579.

The following works were undertaken by the Public Works Department for the irrigation of forests in the Karachi division and the cost debited to the Public Works Department budget :—

(i) Repairs to the bund round the south-western boundry of the Gharko forest in the Tatta range.

(ii) Repairs to 4 sluices in the Bagher bund in the Tatta range.

3. Protection of Forests.

(a) *General Protection.*

Northern Circle.

Statement of offences by nature and treatment and comparison with former years.

Division.		A Cases taken into Court.				B Cases compounded.				C Cases undetected.				Total.				Grand total.
		Injury to forest by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized fellings.	Grazing without permission.	Other offences.	
Panch Mahals	1917-18	2	4	15	1	5	492	941	24	54	344	4	..	61	840	960	25	1,886
	1916-17	5	16	18	1	6	550	824	18	50	256	1	..	61	822	843	19	1,745
Surat	1917-18	..	..	..	..	3	45	35	12	1	2	1	..	4	47	36	12	99
	1916-17	3	1	..	3	16	21	36	10	2	3	..	..	21	25	36	13	95
North Thana	1917-18	..	2	..	..	1	181	265	13	48	90	2	..	49	273	267	13	602
	1916-17	..	21	1	..	..	191	228	27	55	151	..	..	55	363	229	27	674
West Thana	1917-18	9	25	24	1	..	162	368	24	22	47	2	..	31	234	394	25	684
	1916-17	6	27	9	1	4	197	362	26	31	115	2	3	41	399	373	30	783
East Thana	1917-18	11	43	7	7	11	254	360	66	73	116	1	6	95	413	368	79	955
	1916-17	5	18	6	4	9	329	240	48	64	113	7	1	78	460	253	53	844
South Nasik	1917-18	..	2	6	1	3	158	123	20	19	30	..	1	22	190	129	22	363
	1916-17	1	7	9	2	5	163	123	38	41	36	..	..	47	206	132	40	425
North Nasik	1917-18	..	3	1	1	..	236	246	25	8	37	..	..	8	276	247	26	557
	1916-17	1	8	3	1	1	180	334	46	6	14	..	1	8	202	337	47	595
Nasik sub-division.	1917-18	..	21	6	1	1	442	444	26	3	35	..	1	4	498	450	28	980
	1916-17	..	3	5	..	1	301	278	11	13	36	..	..	14	340	283	11	648
Total of 1917-18		22	100	59	12	24	1,970	2,782	210	228	701	10	8	274	2,771	2,851	230	6,126
Total of 1916-17		21	101	51	12	42	1,932	2,425	224	262	724	10	5	325	2,757	2,486	241	5,809
Average of the past three years.		38	74	58	13	40	1,924	2,274	255	328	815	6	11	406	2,814	2,338	275	5,836

The circle figures call for no comment except that the general efficiency of the staff continued to decline and no responsible Divisional Forest Officer puts much value on reported figures.

Panch Mahâls.—A total increase of 141 offences is chiefly due to 117 additional cases of grazing. Total cases warned increased by 50 per cent., and those undetected by 30 per cent., pointing to general slackness.

Surat.—A district of exceptional circumstances. Fire protection remained good.

North Thâna.—Shows a decrease of 72 cases from a figure of 692 for the last year, chiefly under unauthorized fellings for which prosecutions fell from 21 to 2 of the last year. The reporting officer suggests that perhaps five changes of Divisional Officer within the year has something to do with it. It is almost probable, but from figures it might be argued as due to the salutary effects of last year's administration.

West Thâna.—Shows a total decrease of 99 offences from last year's figure of 783, due almost entirely to unauthorized felling, chiefly under " Undetected

cases"; the Divisional Forest Officer remarking that the improvement is more apparent from figures than actual. Prosecutions rose from 43 to 59 and the percentage of acquittals fell from 6·5 to 3 per cent.

East Thana.—Shows a total increase of 111 cases from the figure of 844 of the last year; the only decrease was under unauthorized felling. Prosecutions increased from 33 to 68 but the percentage of acquittals fell from 10·5 to 5 per cent., 25 of the additional prosecutions were under unauthorized fellings.

South Nasik.—Showed a total decrease of 64 cases from last year's figure of 425, chiefly under fire due to a damp season. Prosecutions dropped from 19 to 9 and the percentage of acquittals fell from 19 per cent. to nil. The district suffered from having four different Divisional Officers during the year.

North Nasik.—Showed a decrease of 39 cases from last year's figure of 595, but unauthorized felling cases increased by 74 from a figure of 202 and cases of grazing decreased by 90 from a figure of 337, while other offences decreased by 22. The number of fires remained at 8. Reasons given are the need of hutting by persons moving on account of plague and the opening of forests due to lack of fodder generally.

Nasik sub-division.—There was a total increase of 332 cases from last year's figure of 648, chiefly and equally due to unauthorized felling and grazing and accounted for by more attention to these matters since the creation of the sub-division as an independent charge and partly to need of hutting material and shortage of fodder.

Central Circle.

The following table classifies the offences reported during the year as compared with those of 1916-17 and with the average of the three previous years :—

Division.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total.	
	Injuries to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorised felling.	Grazing without permission.	Other offences.	1917-1818.	1916-1917.
East Khandesh ..	2	11	8	12	1	267	360	168	24	114	1	4	27	392	369	184	972	898
West Khandesh ..	..	4	12	3	53	413	483	36	23	53	4	1	76	470	499	40	1,085	780
North Khandesh ..	1	7	9	4	7	175	183	59	39	91	3	1	47	273	195	64	579	551
Poona ..	1	20	21	4	29	646	848	151	69	120	7	1	99	786	876	156	1,917	2,153
Satara ..	2	18	27	14	25	423	679	143	22	42	2	6	49	483	708	163	1,403	1,224
Kolaba ..	14	112	163	19	7	266	313	52	30	190	14	2	51	568	490	73	1,182	1,302
Total .. 1917-18 ..	20	172	240	56	122	2,190	2,866	609	207	610	31	15	349	2,972	3,137	680	7,138	6,908
Total .. 1916-17 ..	52	199	94	43	91	2,144	2,591	638	320	702	18	16	463	3,045	2,703	697	6,908	..
Average of the three preceding years 1913-14 to 1915-16.	53	248	110	59	83	2,385	2,246	479	311	802	15	15	448	3,468	2,372	553	6,843	..

As compared with 1916-17, the total shows an increase of 230, for which grazing offences are responsible, they having increased by 434, while fires decreased by 114, fellings by 73, and other offences by 17. Comparing results with the 3 year average, fires and fellings decreased by 99 and 496 respectively, while grazing offences increased by 765, and other offences by 127.

Fires and grazing are dealt with in detail later; as regards fellings, no serious thefts took place and many of the offences reported were due to unauthorized removal of material, for building temporary huts, by persons who had vacated their homes owing to plague. This was certainly the case in Poona, and was probably a contributory cause to the large increase in felling cases in West Khándesh. In the latter division the difficulties of protection were enhanced by the establishment being taken from their proper duties and concentrated on collecting grass for the Army. From both the Poona and Kolába divisions it is reported that the communal punishment inflicted on villages, where illicit fellings had previously been rife, had a noticeable effect in checking these offences.

Including 110 cases pending from the previous year, 598 cases were taken into court, the same number as in 1916-17 and, of these, 451 resulted in convictions, 46 in acquittals, 2 were withdrawn, and 99 remained undisposed of. The percentage of convictions was therefore 90·7, a slight improvement on the 88·8 per cent., of the previous year. North Khándesh for the third year in succession was successful in all its prosecutions.

The number of cases compounded rose from 3,962 to 5,207, those in which offenders were merely warned fell from 498 to 295, and undetected cases fell from 1,056 to 863. The amount of compensation taken was Rs. 41,597.

Offences are summarized below for the convenience of the Commissioners' review, according to their jurisdictions :—

	Divisions in the Central Division East, West and North Khandesh, Poona and Satara.			Divisions in the Southern Division Kolaba.		
	1916-17.	1917-18.	Plus or minus.	1916-17.	1917-18.	Plus or minus.
Total offences ..	No. 5,606	No. 5,956		No. 1,302	No. 1,182	
Fires ..	392	298	— 94	71	51	— 20
Fellings ..	2,317	2,404	+ 87	728	568	— 160
Grazing ..	2,284	2,647	+ 363	419	490	+ 71
Other offences ..	613	607	— 6	84	73	— 11
Cases taken into Court	229	224	— 5	264	372	+ 108
Cases disposed of ..	188	181	— 7	199	316	+ 117
Percentage of convictions.	92·2	92·8	..	85·9	89·5	..
Cases compounded ..	3,547	4,559	+ 1,012	415	648	+ 233
Compensation taken .	Rs. 32,408	Rs. 38,667	Rs. + 6,259	Rs. 1,425	Rs. 2,930	Rs. + 1,505
Cases warned ..	No. 252	No. 265	+ 13	No. 246	No. 30	— 211
Offenders not traced .	724	627	— 97	332	236	— 96

Southern Circle.

The following table classifies the number of offences reported during the year as compared with those of 1916-17 and with the average of the preceding three years :—

Nature of offence.	A. Taken into Court.			B. Compounded.			C. Undetected.			Total.		
	1917-18.	1916-17.	Average of past 3 years.	1917-18.	1916-17.	Average of past 3 years.	1917-18.	1916-17.	Average of past 3 years.	1917-18.	1916-17.	Average of past 3 years.
I.—Injury by fire .	13	27	28	63	125	81	940	989	736	1,016	1,141	845
II.—Unauthorized fellings.	86	98	120	2,083	2,384	2,601	277	351	473	2,446	2,833	3,194
III.—Unauthorized grazing.	44	32	46	1,405	1,341	1,314	11	16	15	1,460	1,389	1,375
IV.—Other offences .	6	18	9	175	261	331	8	3	11	189	282	351
Total ..	149	175	203	3,726	4,111	4,327	1,236	1,359	1,235	5,111	5,645	5,765

The total number of offences were less than those of the previous year and the average of the preceding three years by 534 and 654, respectively.

A favourable season and less number of fires in betta lands in Kánara C. D. and Kánara S. D. account for the decrease in the total number of fire cases. In Kánara E. D., however, there was an increase owing to a good deal of malicious firing.

Illicit fellings and other offences also decreased in all divisions, notably in Kánara Eastern, Central and Southern owing to exclusion of betta offences from the offence register and their disposal as breach of contract under the betta agreement. Special arrangements made to provide the people with agricultural implements also account for the decrease to a certain extent.

The offences of illicit grazing slightly increased particularly in Belgaum and Kánara E. D. owing to persistent trespass in closed areas.

The policy of rewarding forest subordinates and villagers for detecting forest offences and punishing them for neglect was continued.

The results of cases tried by Courts are compared below :—

Division.	1917-18.		1916-17.		Percentage of acquittals.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1917-18.	1916-17.
Kánara, N. D. ..	12	3	11	2	20·0	15·4
Kánara, E. D. ..	9	1	5	1	10·0	16·7
Kánara, C. D. ..	19	10	23	9	34·4	28·0
Kánara, S. D. ..	68	12	41	11	15·0	21·2
Kánara, W. D. ..	38	3	20	2	7·3	9·1
Belgaum ..	40	3	27	2	6·9	6·9
Dhárwár-Bijápur ..	18	4	8	2	18·2	20·0
Ratnágiri ..	..	..	1	..	..	..
Total ..	204	36	136	29	15·0	17·6

There was a satisfactory decrease in the percentage of acquittals. Cases sent to Court are usually those in which the offenders refuse to compound or are habitual culprits, and out of 5,785 total cases 240 or 4·1 per cent., were thus taken to Court.

There was only 1 case of importance—in Kánara E. D. One man of the Dhárwár district persistently drove cattle into one of the Kirvatti coupes throughout the season. They were caught five times and as the man refused to pay the compensation, he was prosecuted before the Mamlatdar of Yellápur, who, however, let him off very lightly. Persistent trespasses of this kind should be severely punished. This matter was brought to the District Magistrate's notice. In the re-trial of the case of Kánara C. D., referred to in last year's report, the accused was convicted and fined Rs. 100.

The number of cases compounded and the compensation recovered are compared in the following table :—

1917-18.		1916-17.		Average of past 3 years.	
No. of Cases.	Compensation.	No. of Cases.	Compensation.	No. of Cases.	Compensation.
3,238	Rs. 19,469	3,785	Rs. 23,873	3,905	Rs. 20,978

Offenders in 389 cases were let off with simple warning as against 379 cases similarly dealt with last year.

The number of undetected offences decreased from 1,359 last year to 1,236 during the year. The percentage of undetected offences to the total number reported was 21·3, the same as last year. A large number of these undetected offences are fire offences which are always difficult to trace.

Sind Circle.

The following table gives the number and classification of forest offences reported during the year as compared with those of 1916-17 and with the average of the three preceding years.

Division.	Cases taken into Court.				Cases compounded.				Cases undetected.				Total.				Grand total.
	Fire.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	Fires.	Unauthorized fellings.	Illicit grazing.	Other offences.	
Sukkur ..	..	29	13	6	..	412	649	1	32	224	..	..	32	665	662	7	1,366
Shikarpur ..	..	12	7	..	..	201	357	10	15	126	..	..	15	339	364	10	728
Larkana ..	..	1	2	2	..	204	321	5	9	26	..	..	9	231	323	7	570
Hyderabad ..	..	23	1	..	..	126	204	1	9	42	..	..	9	191	205	1	406
Karachi ..	..	10	4	..	1	123	135	2	37	6	..	..	38	139	139	2	318
Total of 1917-18 .	..	75	27	8	1	1,066	1,666	19	102	424	..	..	103	1,565	1,693	27	3,388
Total of 1916-17 .	3	97	22	4	1	1,150	1,949	32	85	494	1	..	89	1,741	1,972	36	3,838
Average of past three years.	4	80	28	18	1	878	2,407	46	135	376	..	4	140	1,300	2,436	52	3,928

The total shows a decrease of 450 as compared with the total of 1916-17, every class of offence contributing to the decrease except fires; fellings by 176, grazing by 279 and other offences by 9; the number of fires increased from 89 to 103.

The total number of cases of illicit fellings reported was 1,565 against 1,741 last year; the decrease is due to the fact that many of the hill "maldars" kept away from forest owing to the abundance of grass in the hills consequent on heavy rainfall and partly also to the failure of the babul pod crop. Similarly the decrease in the number of undetected offences from 580 to 526 can be attributed to the absence of these people from the forest.

Rupees 12,070 were realized as compensation in the 2,752 cases compounded as compared with Rs. 11,937 and 3,132 cases respectively of the previous year.

Ninety-nine cases were let off with a warning against 81 last year.

The offences taken into court are detailed below:—

Pending from last year	.. ..	52
Cases of the year	.. ..	110
		162

Of these, 104 cases were decided during the year and 5 cases were withdrawn and compounded, leaving 53 cases pending at the close of the year. Convictions were secured in 79 cases while the offenders in 25 cases were acquitted; the percentage of acquittals for the different divisions of the circle are as follows:—

	1917-18.	1916-17.
Sukkur	26·7	34·8
Shikarpur	34·6	
Lárkána	..	27·2
Hyderabad	7·69	..
Karachi	..	16·6

The old Sukkur division (now divided into the Sukkur and Shikarpur divisions) still shows a very high percentage of acquittals, 24 cases in all being lost out of a total of 82 cases presented for trial. Enquiries into the causes of this state of affairs reveal that in 5 cases the "mashirs" changed their statements before the court, 4 cases failed owing to the dishonesty of forest subordinates who have been dealt with and in 3 cases faulty presentation of the case was responsible for the failure; the remaining 12 cases can be taken as the normal amount of failure in divisions where the subordinates are of doubtful honesty and mostly illiterate. In the above connection the large number of cases pending before

the courts bears out to a large extent the following remarks of the Divisional Forest Officer, Sukkur :—

> " It would be an advantage in forest cases if complaints could be taken up and disposed of by Magistrates without frequent postponements as the latter only lead to witnesses being tampered with and evidence weakened in consequence ".

In three cases forest guards were obstructed and assaulted in the execution of their duty and convictions were secured in all three cases. The Range Forest Officer, Miani, Mr. R. F. Pinto, was assaulted in the Miani forest in the execution of his duty ; this case is still pending and the services of the Public Prosecutor have been lent in this case by the District Magistrate of Hyderabad.

One important case occurred in the Shikarpur division where the Zamindar of Bhirkan, taluka Sukkur, was prosecuted under section 379 of the Indian Penal Code and rules under section 41 of the Indian Forest Act for theft of wood from revenue waste lands under cover of passes for a different class of material ; the prosecution was lodged at the instance of the Collector of Sukkur and the offender was fined Rs. 200 under section 379, Indian Penal Code, and Rs. 300 under section 41 of the Indian Forest Act.

(*b*) *Protection from Fire.*

Northern Circle.

There were only 267 actual fires as compared with 317 in the previous year but, unfortunately, the area burnt was approximately 24,000 acres in each year.

The only division showing an increase in numbers of fires was East Thána which had 95 against 78 of the last year, North Shahapur (denoting the Tansa Catchment area) was the worst spot as usual and wiped out the temporary improvement of the last year. The only satisfactory feature is that the total increase in area burnt was in open forest, but when open forest does burn extensively it connotes much rank growth and correspondingly heavy damage.

South Nasik showed a decrease of 25 fires and a reduction of area burnt of some 2,000 acres and records the reason as a damp season. With frequent change of the officer in charge these figures must be taken with reserve.

West Thana had ten fewer fires, which is partly accounted for by the Bassein forests North of the Tansa river having gone to North Thána, but West Thána had more area burnt than last year and North Thána six fewer fires with 25 per cent. less area burnt. It also had five different Divisional Officers in charge during the year.

Surat had only 4 fires against 21 of the last year but its fires are nominal in extent and no comment is necessary.

Panch Mahals and North Nasik had the same number (61 and 8 respectively) as last year and in each case the area burnt was rather greater.

Nasik sub-division had only 4 fires as against 14 of last year and a correspondingly small area burnt, but with scarcity of fodder and much illicit grazing there can have been little to burn.

All that can be said is that fire protection in the Northern Circle is not too bad, except in small localities and that further real improvement depends on efficient staff, both controlling and subordinate.

Central Circle.

The number of fires decreased by 128, from 507 in 1916-17 to 379 during the year under report, and the area burned by 90,775 acres, from 204,212 acres to 113,437, every division but West Khándesh showing an improvement both in number of cases and in area. This satisfactory result was no doubt partly brought about by the unusual rainfall in April and May.

East Khándesh, the division, where difficulties in the way of protection are greater than in any other, showed a welcome drop from 81 cases to 46 and from 55,924 acres to 17,348. Labour is so difficult to obtain in this division that fire tracing is never completed as early as is desirable, and in the past it has frequently happened that large conflagrations have been started by burning too late in the season, when the forests are in a most inflamable state ; this year the Divisional Officer adopted, with good effect, the policy of leaving unburned any lines not completed by February 15th, preferring the risk of accidental fires within the

forests to the practical certainty of those which would originate from late burning of the traces. The policy has its defects of course in that an accidental fire within the forests spreads further than it would do if traces were perfect, and of this there were instances in the case of two large fires of 6,000 and 3,000 acres respectively, though it must be mentioned that in the latter case, where the fire came across the Indore boundary, the wind was so high that no trace of ordinary dimensions could have stopped it. The Indore State is a constant source of anxiety with its forests burning unchecked for days and weeks on end, and with an extremely difficult common boundary to fire trace, but an arrangement has been come to with the State Forest Department by which East Khándesh can counter fire in the State forests and so protect itself on the first sign of danger. The system in force too in the Nimar forests of deliberate early firing necessitates, if the Khándesh forests are to be saved, very early and very thorough burning of the common boundary, a matter difficult to carry out. In the Edlabad range the Divisional Officer adopted what is an innovation in this district, namely persuading the leading men of a village to form a committee and take on themselves the whole responsibility of fire tracing and subsequent protection of a definite area. This they did with success and have been rewarded accordingly; unfortunately the system is not capable of extension elsewhere to any great extent as such a large proportion of the forest area is totally uninhabited.

West Khándesh showed an increase in the number of fires from 68 to 76, and in the area burned from 15,798 acres to 31,310. While the more valuable areas, thanks largely to the good conduct of the surrounding villages, maintained the immunity that they have enjoyed for some years past, yet in other cases there was much laxity both in fire tracing and in aid in extinguishing fires that broke out. The enforced absence of the forest staff on grass work elsewhere was no doubt partly conducive to this laxity.

North Khándesh had a successful season, fires decreasing in number from 72 to 54, and in area from 124,004 acres to 59,176; the Akrani especially showed a reduction from 92,884 acres to 18,403, the result probably of more willing assistance by the people consequent on punishments inflicted last year. The Shirpur West range on the other hand had a larger area burned, but mostly in comparatively inaccessible and less valuable localities. In this division, as in East Khándesh, the forests of adjoining Native States are a source of danger, and fires crossing the common boundary were responsible for 13,744 acres burned; the only remedy is to increase the width of our boundary traces and this will be done.

Poona and Sátára call for little comment. Grass is such a valuable commodity and is, compared with Khándesh, so scanty, that the forests are practically immune from extensive fires. Both divisions showed a decrease in number of fires and in area burned, the latter amounting to no more than, Poona 4,233 acres, Sátára 684.

Kolába is in the same enviable position, no more than 686 acres being burned by 52 fires, as compared with 1,397 acres by 76 fires in the previous year.

Of the 379 cases of fire which occurred throughout the circle, 349 are classed as offences, the remaining 30 having orginated in carelessness in burning fire lines. The offenders in 207 cases were undetected, in 11 warnings only were necessary, 111 were compounded as being of too trivial a nature to take into court, and 20 cases, in addition to 12 of the previous year, were disposed of by prosecution. In these 32 cases, 25 convictions were obtained, 3 resulted in acquittals, and 4 are pending disposal.

Communal and individual reward or punishment for aid or the reverse in fire protection was freely resorted to, taking the shape of remission or enhancement of grazing fees, grants of timber, rewards to patels and in extreme cases cancellation of privileges. The good effect of punishment in North Khándesh has already been commented upon. In Kolába there is never need for action of this kind, the villagers, in their own interests, as grass and leaves are so valuable for their rab-burning, invariably displaying the greatest eagerness to prevent and extinguish fires; in above ghat divisions and especially in Khándesh where grass is so abundant as to be of little value to them, they have not the same inducements and naturally act accordingly.

For the whole circle the area under special protection was 2,387,844 acres, and the cost incurred on protective measures was Rs. 16,360; 2,274,407 acres or 95·2 per cent. were saved. Of the 1,13,437 acres burned, 30,704 acres, or 27 per cent., were closed forest, last year's percentage being 11·3.

Southern Circle.

The area attempted to be protected from fire was 4,038 square miles as compared with 4,085 square miles in the preceding year. The percentage of failure was 4·5 against 2·0, and the cost of protection decreased from Rs. 5·6 per square mile to Rs. 5·3. The detailed results of each division are compared with those of the previous year in the following statement.

Division.	Area attempted to be protected.		Area burnt.		Area actually protected.		Percentage of success.		Cost.		Cost per square mile protected.	
	1917-18.	1916-17.	1917-18.	1916-17.	1917-18.	1916-17.	1917-18.	1916-17.	1917-18.	1916-17.	1917-18.	1916-17
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.	Rs.
Kanara, N. D. ..	425	420	20	10	405	410	95·3	97·6	4,269	4,945	10·5	12·1
Kanara, E. D. ..	587	587	65	5	522	582	88·9	99·1	5,277	4,899	10·1	8·4
Kanara, C. D. ..	779	779	32	20	747	759	95·9	97·4	888	1,026	1·2	1·4
Kanara, S. D. ..	609	708	9	11	600	697	98·5	98·4	664	357	1·1	·5
Kanara, W. D. ..	828	829	9	8	819	821	98·9	99·0	2,520	2,838	3·1	3·5
Belgaum ..	680	636	40	20	640	616	94·1	96·9	6,012	7,934	9·4	12·8
Dharwar-Bijapur ..	111	107	7	9	104	98	93·7	91·6	899	768	8·6	7·8
Ratnagiri ..	19	19	..	..	19	19	100·0	100·0	..	30	..	1·5
Total ..	4,038	4,085	182	83	3,853	4,002	95·5	98·0	20,529	22,797	5·3	5·7

The fire-season was a short one owing to the late rain in November and the early heavy rain throughout the month of May. This helped to reduce the expenditure incurred on fire protective measures, but the area burnt was considerably more than in the previous year in Kánara Northern, Eastern and Central divisions and Belgaum. The increase is mostly due to intentional fires set with a view to get early grazing. In all the divisions the usual fire protection measures of clearing fire traces were systematically followed. The policy of putting the whole fire-protection in the villagers' hands on cash payments, introduced last year as a tentative measure in three blocks of organized forest of the Karwar range in Kánara W. D. was again completely successful and was extended to adjoining blocks.

Rewards in the form of Post-Office Cash Certificates of War Loan were given to certain villagers for good fire protection in Kánara N. D. The practice of giving rewards to Patils and villagers in the form of turbans and coats was deferred. The system of rewarding and punishing villages communally for good or bad protection was continued as under :—

Division.	Number of villages.			
	Rewarded with free or concession grazing for good general protection.		Punished for bad protection by enhanced grazing fees.	
	1917-18.	1916-17.	1917-18.	1916-17.
Kánara, N. D. ..	53	2	42	28
Kánara, E. D. ..	31	54	47	25
Kánara, C. D. ..	158	16	29	16
Kánara, S. D. ..	....	....	16	25
Kánara, W. D. ..	57	33	32	27
Belgaum ..	99	98	....	166
Dhárwár Bijápur ..	6	2	4	17
Total ..	404	205	170	304

It will be noted that free grazing has been given in a large number of villages.

Intentional firing was rife in two divisions, Belgaum and E. D. Kánara.

In the former division an order, issued by the Collector about 12 months ago, by which villagers who assist in putting out fires are let off grazing fees appears to be dangerous and not unlikely to lead to repeated intentional firing of the forests. It will be noted that due to the above order in Belgaum division no villages were punished by enhanced grazing fees. Though enhanced fees were recommended and sanctioned in many cases, the villagers could show that they had been out to extinguish fires and consequently were let off. The people apparently understand that they only have to set fire to their forests, then when called upon by forest guards go out to put the fire out and this process repeated three times entitles them to free grazing. In spite of a short fire season the area burnt, the number of fires and damage done compares unfavourably with the returns of the previous year. Section 78 of the Forest Act as amended from February 1918 renders persons exercising grazing rights, etc., punishable with a fine of 200 Rs. or 1 month's imprisonment if they fail spontaneously to prevent or to extinguish fires, hence there is now no *raison d'etre* for the order referred to above.

In E. D. Kánara the Mamlatdár of Yellápur in February last expressed his opinion that villagers should be allowed to fire the jungles bordering their fields. This again is a dangerous idea, for the villagers often would not be able to check the fires from spreading over miles of valuable teak forests and if they could check the fires generally they would not trouble to do so.

Form No. 15 shows the number and origin of fires. The particulars of detection and disposal, compared with those of last year, stand as under :—

	1917-18.	1916-17.
Total number of fires reported ..	1,016 (100 per cent.)	1,141 (100 per cent.)
Number detected ..	76 (7·5 „)	152 (13·3 „)
Number compunded ..	63 (6·2 „)	125 (10·9 „)
Number prosecuted ..	13 (1·3 „)	27 (2·4 „)

Of the 13 cases prosecuted conviction was obtained in 8, 1 was acquitted, 4 remaining pending in Magistrate's Courts. The 19 cases pending in Courts from last year were also suitably dealt with. The low percentages of detection and disposal are due to the fact that fire offences are the most difficult to detect and in the few cases reported as detected there is often insufficient evidence to risk a trial in Court ; in such cases compensation or even warning is resorted to.

The statement of areas continuously immune from fire for a period of seven years, prescribed in Government Resolution No. 248 of 12th January 1904, is given below :—

Division.	Total forest area of the division in charge of the Forest Department.	Extent of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest which has been continuously protected from fire for seven years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open forest.	Closed forest.	Total.
	Acres.	Acres.	Acres. Per cent.	Acres.	Acres.	Acres.	Acres.
Kánara, N. D. ..	2,72,961	2,72,961	53,040 or 19·4	500	3,009	9,990	12,999
Kánara, E. D. ..	3,77,045	3,77,045	3,08,667 or 81·9	6,000	1,082	40,680	41,762
Kánara, C. D. ..	5,33,467	Accurate figures not available.					20,215
Kánara, S. D. ..	4,52,957	4,52,957	2,00,000 or 44·2	1,09,180	5,846	..	5,846
Kánara, W. D. ..	5,30,165	1,30,808	1,10,777 or 84·7	52,994	5,457	581	6,038
Belgaum ..	4 34,928	4 23,286	2,58,697 or 61·1	48,500	7,880	17,453	25,333
Dhárwár, Bijápur.	2,19,310	1,83,413	1,18,741 or 64·7	2,297	3,743	1,011	4,754
Ratnágiri ..	12,051	2,546	....	9,508	..	1	1
Total ..	28,32,888						1,16,948

Sind Circle.

Form No. 15 shows the origin and number of fires. The results of the year under report and the previous year are compared below :—

Division.	1917-18.		1916-17.	
	No. of fires.	Area burnt.	No. of fires.	Area burnt.
		Acres.		Acres.
Sukkur ..	32	1,377	27	882
Shikárpur ..	15	181	25	403
Lárkána ..	9	401	22	375
Hyderabad ..	9	196	8	270
Karáchi ..	38	1,691	6	58
Total ..	103	3,846	88	1,988

The number of fires has increased by 15 and the area traversed by fire by 1,858 acres. The Karáchi division is responsible mainly for the increase, the area traversed by fire rising from 58 acres to 1,691. The Divisional Forest Officer, Karáchi, remarks in this connection as follows :—

> " The fact that some fires were started in two or three places and that others occurred during July and August at a time when, some of the roads being under water owing to breached river bunds, it was impossible for the Range Forest Officers to deal adequately with them, are chiefly responsible for this increase. The late inundation of 1917 also meant a much longer sojourn than usual in the forests by graziers and this in turn meant a much larger number of fires. Moreover, the Huderani-Penah forest, always a principal contributor to the fire figures, remained only partially irrigated throughout the inundation due to a defective sluice (since repaired)."

The worst cases were brought to the notice of the Collector who sanctioned the enhancement of grazing fees in the Huderani-Penah and Khanani forests.

The increase in the Sukkur division is due to two large fires that occurred in the Sarhad and Atal forests of the Mirpur range, traversing 325 and 240 acres respectively ; here the Divisional Forest Officer called the maldars who graze their cattle in these forests and warned them personally that a further repetition of these occurrences would lead to enhancement of grazing fees and suspension of privileges.

In the Lárkána division the forests most affected are Dosu and Kacho Khairodero. Both these forests owing to destructive fires in the past are overrun with a rank growth of *sar* and *kanh* grass. In the Dosu forest about five fires occurred, traversing an area of 158 acres, while in Kacho Khairodero one fire alone was responsible for 180 acres being burnt over. These fires are attributed largely to shikar and steps will be taken to close these areas to shooting if the zamindars, who have licenses to shoot, fail to co-operate with the Department in protecting these forests from fire.

The Shikárpur and Hyderabad divisions show satisfactory decreases in the area traversed by fire.

Regular fire schemes, as in force in the Karáchi division for some years now, are necessary for the worst fire-affected areas in the other divisions and this fact has been brought to the notice of the Divisional Forest Officers. Steps are being taken in all divisions to introduce such schemes, and the following fire line cutting and fire tracing work was completed during the year under report.

Karáchi.—Thirteen and half miles were firetraced at a cost of Rs. 424-8-9, while 15¼ miles of old traces, which were full of *kanh* grass, were cleared at a cost of Rs. 508-3-0. Besides these, 141 miles were firetraced free of cost. Fire watchers were entertained in the Mulchand, Shahbunder and Tatta ranges for patrol work and were also employed as gangs on actual clearance.

Hyderabad.—Four miles of 100-foot main traces were cut free of cost, while repairs of existing fire lines, 1¾ miles in length, were carried out, the estimated value of the work being Rs. 240 and 35 respectively.

Shikárpur.—Five miles of fire lines, 100 feet wide, were firetraced along the railway line in the Ruk range.

Cutting of fire lines has been started in the Sukkur and Lárkána divisions.

The following statement required by Government Resolution No. 248 of 12th January 1904 shows the area protected :—

Division.	Total forest area.	Area of valuable forest for which continuous protection from fire is desirable.	Proportion of valuable forest continuously protected from fire for 7 years.	Extent of forest naturally immune from fire.	Extent of forest burnt during the year.		
					Open.	Closed.	Total.
Sukkur ..	209,858	209,858	20,848 or 99·3	..	771	606	1,377
Shikárpur ..	117,229	117,229	117,048 or 99·8	..	69	112	181
Lárkána ..	112,091	112,091	112,716 or 99·6	..	401	..	401
Hyderabad ..	160,253	160,253	159,666 or 99·6	..	173	23	196
Karáchi ..	142,942	142,942	109,326 or 76·5	..	1,543	148	1,691
Total ..	7,42373	742,373	518,604 or 69·8	..	2,957	889	3,846

(*c*) *Protection from cattle.*

Northern Circle.

The following statement shows the number and kind of animals impounded from open and closed forests respectively compared with previous years :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total of 1917-18.	Grand total of 1916-17.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Panch Mahals ..	1,240	11,753	285	3,340	2,453	1,273	8	663	13	49	3,999	17,078	21,077	19,564
Surat ..	20	103	15	22	195	..	..	..	..	..	230	125	355	1,386
North Thana ..	..	1,485	..	479	608	191	..	7	..	..	608	2,162	2,770	3,376
West Thana ..	143	3,578	6	574	229	110	..	..	..	..	378	4,262	4,640	3,851
East Thana ..	617	4,016	69	474	382	456	25	60	..	..	1,093	5,006	6,099	4,858
South Nasik ..	27	2,793	..	427	610	325	..	..	..	4	637	3,549	4,186	4,971
North Nasik ..	..	2,559	..	329	2,714	1,228	1,957	714	..	340	4,671	5,170	9,841	11,419
Nasik Sub-division.	..	3,970	..	323	5,861	332	3,604	73	18	74	9,483	4,772	14,255	8,539
Total, 1917-18 ..	2,047	30,257	375	5,968	13,052	3,915	5,594	1,517	31	467	21,099	42,124	63,223	..
Total, 1916-17 ..	2,412	27,151	482	5,912	10,778	2,768	6,260	2,361	13	127	19,645	38,319	..	57,964
Average for the past 3 years.	1,546	25,826	338	4,932	12,551	5,145	4,605	1,858	30	159	19,070	37,920	56,990	..

The offence figures for the circle show some increase, viz., from 2,486 of the last year to 2,851 of the year under report. The chief factors of this increase are reported as :—

(*a*) Increase in number of cattle in Panch Maháls coincidently with an increase of cultivation in waste lands, the latter being due to rise in the price of food grain.

(*b*) In Thána district and probably in parts of the Panch Maháls too, clear felling giving rise in the first year or two to more grass and succulent shoots, cattle are deliberately driven in for grazing, little heed being paid to pound fees and compensations.

(*c*) In Násik sub-division scarcity and increased vigilance caused a rise in impoundings.

(*d*) In North Násik the opening of forests and grant of the concession to use *anjan* leaves as fodder served to reduce the number of offences below that of last year.

All these factors probably operated as indicated. They all accentuate the need for fodder organization, but when it is considered that the fodder and forage of forests is not an hundredth of the available fodder and forage of the country, it is obvious that not only is very little effected by organizing that of forests apart from other, but while experiencing unnecessary difficulty in doing so, we should

probably adopt measures which would again need modification or cancellation when the larger question was undertaken.

Central Circle.

One thousand six hundred and sixty-seven square miles, representing pastures and protected forests in charge of the Revenue Department, were open to all animals throughout the year. Of the 3,731 square miles in charge of the Forest Department, 578 square miles or 15·5 per cent., being organized areas under regeneration, were closed to all animals throughout the year; and 122 square miles or 3·2 per cent., lands from which the main product is grass, were closed during the grass cutting season, but opened to horned cattle in the hot weather months. 3,031 square miles or 81·2 per cent., were open to grazing of all animals but browsers throughout the year. 10,57,952 head of cattle, of which 9,97,194 grazed on fees and 60,758 grazed free under privilege, were admitted to the forests, an increase of 44,695 over the previous year.

The following statement compares the number and kinds of cattle impounded from open and closed forests, the totals for the jurisdiction of the Commissioner, C. D., being 55,320 as against 43,087 in 1916-17; from open forest 17,887 as against 16,680 and from closed forest 37,433 as against 26,407. In Kolába in the jurisdiction of the Commissioner, S. D., the totals were 4,509 as against 3,842; from open forests 586 as against 479 and from closed forest 3,923 as against 3,363.

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Grand total.
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	
East Khandesh ..	563	8,684	41	1,320	..	..	1,417	376	16	16	2,038	10,396	12,434
West Khandesh .	432	11,081	71	1,206	3,248	308	1,725	81	..	126	5,476	12,802	18,278
North Khandesh	372	5,810	101	453	283	..	..	..	..	2	756	6,265	7,021
Poona ..	290	4,178	37	527	1,073	263	1,881	60	28	20	3,309	5,048	8,357
Satara ..	..	2,447	..	475	1,305	..	5,003	..	..	..	6,308	2,922	9,230
Kolaba ..	99	3,248	10	522	477	153	..	..	..	..	586	3,923	4,509
Total, 1917-18 ..	1,756	35,448	260	4,503	6,387	724	10,026	517	44	164	18,473	41,356	59,829
Total, 1916-17 ..	1,315	22,788	280	4,757	6,646	1,368	8,802	642	106	223	17,159	29,770	46,929
Average of past 3 years.	1,419	24,675	228	4,073	8,133	1,693	7,315	752	90	221	17,189	31,712	48,902

Omitting sheep and goats, of which the total impoundings are about equal to those of 1916-17, though there are variations in the several divisions, and also omitting 'other animals' which are few in number, confining remarks to cows bullocks and buffaloes which are the main source of trespass, it is found that, for divisions other than Kolába, there is only an increase of 329 in impoundings from open forest, but the large increase of 11,841 from closed forest, to which every division contributes.

In East Khándesh there is an increase of 2,589, the majority of which were cases of trespass in the kurans sold for grass cutting to contractors. It is a regular practice of these men, once they have obtained all the profit that they can hope for from sale of grass, either to leave their contract areas without supervision with the natural result that the village cattle stray into them, or else to make illicit profits by deliberately admitting cattle to graze on payment.

West Khándesh shows an increase of 6,267 or nearly 50 per cent.; the Divisional Officer explains and the Collector agrees with him that the increase was due to the absence of rain in the earlier part of the monsoon, to there being no grazing outside forests and to consequent persistent trespass in closures. The undoubtedly difficult situation of the people had finally to be met by the concession to collect *anjan* leaves, and by throwing open closures.

North Khándesh had a small increase of 585; the fact that some 17,000 more cattle grazed in the forests than in the previous year fully accounts for this.

Poona showed an increase of 1,481. Not less than one-quarter of the total impoundings from closures in this division occur in one locality, the Akola range of the Nagar district. The department has made many plantations here, of

which the protection is essential; their area is infinitesimal compared with the open forest available for grazing, but the villagers will not take the trouble to prevent their cattle straying into them.

In Sátára the increase was 919.

In Kolába, it was 573. Plantation work in closed areas has been undertaken on intensive lines in the last two years, and it was from these areas, closed in any case under the working plan but now more zealously looked after in the interests of the plantations, that impoundings took place.

Consequently, though the general increase in impoundings may at first sight seem excessive, it was in no way due to reduction in the area available for grazing or to the introduction of any innovations in the enforcement of the grazing rules.

Southern Circle.

The details of area open and closed to grazing are given in Form No. 16. An abstract is given below:—

Year.	Closed to all animals for whole year.	Closed to all animals for part of year.	Open to all animals (except browsers) for whole year.	Open to all animals for whole year.
	Per cent.	Per cent.	Per cent.	Per cent.
1917-18	33·4	0·1	62·9	3·6
1916-17	20·9	0·3	73·2	5·6

The increase in the area of closure is mainly due to the revision of the figures of the Kánara Central and Southern divisions wrongly given in previous years. Actually in these 2 divisions the area of closure remains practically unchanged.

The number of cattle that grazed in the forests during the past three years are compared below :—

Year.	Horned cattle.	Sheep and goats.	Other animals.	Total.
1917-18	402,384	5,582	623	408,589
1916-17	488,167	1,386	477	490,030
1915-16	468,991	6,328	704	476,023

The following table prescribed in Government Resolution No. 4081 of 22nd April 1908 gives the comparative details of cattle impounded for illicit grazing :—

Division.	Cows and bullocks.		Buffaloes.		Goats.		Sheep.		Other animals.		Total.		Total open and closed for 1917-18.	Total open and closed for 1916-17
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.		
Kanara, N. D. ..	..	1,579	..	555	..	79	..	..	..	..	..	2,221	2,221	2,331
Kanara, E. D. ..	..	546	12	337	..	22	..	..	..	..	12	905	917	1,232
Kanara, C. D. ..	..	106	..	8	49	35	..	..	..	..	49	149	198	352
Kanara, S. D. ..	17	52	..	24	66	2	..	..	..	..	83	78	161	211
Kanara, W. D. ..	..	526	..	139	..	2	..	..	..	..	..	667	667	301
Belgaum ..	91	2,789	11	1,205	..	..	..	692	..	3	102	4,689	4,791	3,118
Dharwar-Bijapur.	364	1,646	28	390	..	1,911	..	175	64	17	456	4,139	4,595	4,201
Ratnagiri ..	..	12	..	..	..	..	..	..	..	..	..	12	12	6
Total, 1917-18 ..	472	7,256	51	2,658	115	2,051	..	867	64	28	702	12,860	13,562	..
Total, 1916-17 ..	230	5,946	28	1,975	91	1,588	12	1,848	..	34	361	11,391	..	11,752
Average of past 3 years.	397	6,990	149	2,527	559	2,449	97	1,132	2	24	1,204	13,122	..	..

The main increase in impoundings occurs in the number of horned cattle in the Belgaum and Dhárwár-Bijápur divisions. In both divisions the increase is partly ascribed to the increase in area of the forest in charge of the Forest Department and partly to more accurate reporting of offences by subordinates.

Sind Circle.

85·37 per cent. of the forest area was open to the grazing of cattle except goats and camels. The latter animals were admitted to 543·49 square miles or 46·9 per cent. of the forest area.

The following statement shows the number and kind of animals impounded from open and closed forests compared with previous years :—

Division	Cows and bullocks.		Buffaloes.		Sheep.		Goats.		Camels.		Other animals.		Total		Total open and closed.	
	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	Open.	Closed.	1917-18.	1916-17.
Sukkur ..	287	1,291	136	550	2	..	354	773	180	187	100	43	1,057	2,844	3,901	3,680
Shikarpur ..	62	635	47	458	..	..	376	1,361	23	222	1	33	509	2,709	3,218	3,300
Larkana ..	71	697	131	557	..	141	65	1,453	30	389	2	9	299	3,246	3,545	2,668
Hyderabad ..	246	792	289	580	..	..	1,069	453	101	219	18	239	1,723	2,283	4,006	2,442
Karachi ..	420	484	293	288	..	..	253	435	89	300	73	104	1,128	1,611	2,739	2,720
Total, 1917-18 ..	1,086	3,899	896	2,433	2	141	2,117	4,475	423	1,317	194	428	4,716	12,693	17,409	14,810
Total, 1916-17 ..	1,270	2,302	1,008	1,529	97	78	2,232	3,565	639	1,480	147	475	5,401	9,409	14,810	..
Average of past three years.	1,266	3,246	511	1,915	175	212	3,390	4,153	528	1,282	123	260	5,994	11,079	..	..

Impoundings.

The net increase in impoundings for the circle is 2,599, those from closed areas having risen by 3,284, those from open areas having fallen by 685. The increases occurred in the Hyderabad, Sukkur and Lárkána divisions. In the Hyderabad division, which accounts for more than half of the increase, it is due to greater insistence on better protection of forest and stricter supervision on the part of the present Divisional Forest Officer as compared with the lax regime of his predecessor. The increase in the Lárkána division is due to the fact that owing to the high floods late in the season, kharif lands in the neighbourhood of the forests were almost all submerged and were again sown with rabi; thus the area which could otherwise have been available for grazing in the cold weather was covered with rabi till the harvest was over. The area for grazing being thus reduced, the neighbouring villagers took every opportunity to graze their cattle stealthily to evade the payment of grazing fees. In the Sukkur division the increase occurred in the number of impoundings from closed areas for which there was no option but impounding. Temporary cattle pens for impounding so-called wild cattle, "gormal", were established in certain forests frequented by these animals. In Lárkána 19 animals were caught, the revenue from fees being Rs. 13 only. In Hyderabad 92 animals were caught in nine pounds, the fees realized amounting to Rs. 84. No expenditure was incurred on these pounds as they were managed by literate round and beat guards in addition to their duties. The writer agrees with the Divisional Forest Officer, Lárkána, who states "there is hardly any cattle in this division which in the real sense of the word can be called 'gormal'." There are no ownerless cattle in the Sind Forests and the term "gormal" has been invented by forest subordinates to excuse their delinquencies in not properly protecting closed areas from grazing and in not properly collecting grazing fees; the true remedy is impoundings of such animals through the agency of drives organized by the staff and the prosecution of the owners, when it is found that there is a deliberate intention to evade the payment of grazing fees.

Newly exploited coupes were fenced with waste branch wood. The total length of new fences put up amounted to 298¾ miles.

Satisfactory progress has been made in the work of starting fencing operations round the coupes containing coppicing species directly felling operations begin. Repairs to existing fences were carried out over 737 miles; this work was done by the subordinate staff assisted by maldars and privilege holders.

(d) Protection against injuries from natural causes.

Northern Circle.

In all divisions creeper cutting is reported to have received good attention.

No other damage from natural causes was reported.

Central Circle.

The usual creeper cutting was done by guards; it is work that is not of great importance in the circle except in Kolába with its moist climate. Prickly pear was systematically eradicated from the babul forests of Poona and much excellent work was seen by the Conservator in the Khed, Junnar and Akola ranges of this division in the shape of 'tals' for the prevention of erosion, and for the formation behind them of pockets of soil on which plantations have been made with good results.

Southern Circle.

Defoliating insects again attacked the teak in Kánara N. D., the one-year old plants in a plantation in the Kulgi range being badly defoliated. Samples of leaves attacked were sent to the Forest Research Institute, Dehra Dun, for investigation.

In Kánara S. D. a good many casuarina trees in Kasarkod and Kalagnur died from some unknown cause, the trees withering from top downwards. Such trees were cut and sold.

The Kodibág casuarina plantation along the sea face in Kánara W. D. was again seriously eroded during the storms in May and June, and several hundreds of trees were uprooted or had to be cut down. The groins put in by the Public Works Department having been washed out, a sunk fence has been built and boarded up at the worst place, after completion of which no further damage has been done.

Wild elephants seem to be increasing in the southern portion of Khánápur and in the Northern Division of Kánara. They did considerable damage to crops and some damage to the teak plantation in the Dándeli range. The Chief Conservator and two Divisional Forest Officers went to Coorg in May to study methods of pitting elephants. Pit traps are to be tried next hot weather.

The floods of the Krishna and other rivers of Bijápur did some damage to the riverain forests by uprooting trees on the banks. The planting of Zili (*Sesbania ægyptiaca*) along the banks was continued with a view to check erosion as far as possible.

The cutting of creepers and eradication of prickly pear and *lantana* was continued in all divisions. The latter shrub has spread with rapidity, especially in the vicinity of villages where its use for fencing constitutes a danger to the forests and often results in dense thickets close round the villagers' huts. These impenetrable thickets harbour pig close to the villagers and often render village sites unhealthy.

Sind Circle.

All divisions report considerable damage by frost, which was particularly severe in January, to young seedling and coppice growth, much of which however revived with the advent of warmer weather. Rats were troublesome in the Karáchi and Lárkána divisions and did some damage by gnawing the bark of young trees just above ground level. Porcupines also gave trouble in the plantations of "tali" (*Dalbergia Sissoo*) in the Sukkur division, but their depredations were to some extent checked by the use of spring traps in which several of these animals were caught and then destroyed.

The defoliating caterpiller pest, which did much damage in the forests of the Karáchi division in the previous year, was conspicuous by almost complete absence during the year under review. Kamo creeper cutting was carried out by the staff in young crops, also by contractors in all coupes under exploitation, and a few small contracts were given for the removal of this creeper pest.

4.—SYLVICULTURE.

(*a*) *Natural Reproduction.*

Northern Circle.

(i) *From seed.*—This was everywhere good in relation to the factors of the various localities. In all divisions large numbers of natural seedlings were found in last year's fellings and staked. Later these were mulched and shaded. West Thána reports the greatest number thus dealt with, *viz.*, four lákhs, but other divisions especially, North and East Thána, undertook extensive operations of

the same kind. Results are good as judged by reclaiming seedlings from otherwise almost certain extinction, but in vigour these seedlings do not compare with those artificially raised.

(ii) *By coppice.*—This is everywhere good and operations for freeing shoots from rank surrounding growth give excellent results.

Central Circle.

Except in the case of anjan, of which the crop of seed was exceedingly poor, the year was a good one; the monsoon was well distributed in most districts, the natural reproduction of seedlings of the previous year had a good chance of survival and were also given considerable impetus by the early rains in April and May of this year. West Khándesh was an exception to the statement that the monsoon was well distributed; in the eastern tálukas where the anjan forests are situated, the rains held off till late in August, and not only was there no fresh reproduction from seed, but the opening of the forests to meet the need for grazing, though absolutely necessary in the interests of the cattle, cannot but have had disastrous results to the reproduction of the past ten years, for the anjan is so slow growing species in the early stages of its existence—so much so that the Inspector General of Forests has recommended that the period of closure for it be raised from 10 to 15 years—that few plants that have sprung up for many years past can have escaped being devoured down to ground level. Two years have now elapsed since the anjan seeded freely; the next seed crop may, in accordance with the habit of the species, be expected in 1919.

Much attention was paid to the important work of tending natural seedlings of teak, more so in the Deccan divisions, where fires are few but natural reproduction from seed a very slow process than in Khándesh where reproduction is more a matter of fire protection than anything else. In the teak coupes of the Poona division some 60,000 seedlings of the last two years are reported to be successfully established, and very promising results are also reported from North and West Khándesh and Kolába.

Reproduction by coppice was everywhere good, and no doubt benefited by the favourable fire protection results of the year. The exception again was in the case of the anjan which, under the system hitherto followed of felling flush with the ground, has been found to fail to coppice to an extent which may be as high as 40 per cent. of the trees cut. To remedy this failing, pollarding the tree at a considerable height above the ground is now being resorted to, and other experiments are being carried out which will be referred to later in this report.

Natural extension of sandalwood trees is a very marked feature in parts of the Poona and Sátára divisions, giving promise of good revenue in years to come; the demand for the few large trees that now exist is always very great, showing that the species is capable of attaining marketable value in the Deccan as well as in its more natural home in the south of India.

Southern Circle.

(i) *From seed.*—This was a fair seed year for teak and matti, and good for honni and blackwood. The natural seedlings which came up in the early monsoon were tended and kept clear of weed in all divisions as usual.

(ii) *By coppice.*—Regeneration by coppice shoots in past fellings was everywhere satisfactory in the Kánara divisions. In Belgaum and Dhárwár-Bijápur fires did some damage to old coupes.

Sind Circle.

The area flooded was 560,920 acres compared with 447,753 acres of the previous year. The inundation of the year was high and unsually prolonged; the rains were also plentiful. Natural and artificial regeneration of the year was therefore not lacking when the river went down first, but unfortunately it rose a second time in October and, on account of this double inundation, much of the seedling growth that had appeared on the first fall of the river got submerged and killed. These failures were resown as far as possible in October and November, but the cold weather and severe frost ensuing either prevented or retarded

regeneration to a great extent. In spite of these adverse factors a fair amount of new artificial regeneration has been secured and looked well in the late hot weather. Its continued welfare will depend on the river conditions of the current year which, however, so far, have been very unsatisfactory. Reproduction by coppice was good save on the lowest levels where submersion did much damage. However, some advantage was obtained from the high river in that high level areas, which do not always come under the influence of floods, did so in 1917 with the result that germination was secured in them and previously existing growth benefited. At the same time many areas in Karáchi and Hyderabad under regeneration of the years 1915-16 and 1916-17 received excessive water and in such places much loss of seedling growth ensued from submersion. The effect of closure to browsers in certain forests and ' kachas ' of the Hyderabad and Karáchi divisions is very marked, resulting in a continual, very valuable increase in the proportion of natural seedling growth as well as securing the safety of existing advance growth and reducing the damage by lopping which always forms an accompaniment to the camel and goat herd.

In the inland forests germination of " kandi " (*Prosopis spicigera*) was good on suitable soils owing to the heavy rainfall of 1917, but it is problematical if it will survive as rainfall in the inland forest zone is very variable.

(*b*) *Artificial Reproduction.*

Northern Circle.

REGULAR PLANTATIONS.

Ordinarily, these are limited to teak in the Bulsár-Chikhli range of Surat district, casuarina plantations in North and West Thána, and babul coupes in the Násik sub-division. The first are complete. The second made good progress, 36 acres being planted up; new seedlings were raised for planting, while watering and tending were duly carried out. The babul coupes were resown with satisfactory results.

In the year under report large areas varying from 120 to 2,000 acres were dibbled or otherwise sown with tarwad (*Cassia auriculata*) in all divisions except Thána where the plant does not thrive, Násik sub-division and North Násik naturally doing most. The partial failure of the rains handicapped results, on which a separate report will be made next month on receipt of special reports called for.

CULTURAL OPERATIONS.

These consisted of dibbling, planting and tending.

Opinion is divided as to whether dibbling or planting give the best results, provided they are on old charcoal-kiln sites or areas prepared by burning coupe refuse. Ground thus prepared and stocked gives plants ten times as good as the natural seedlings. In either case, shading in the hot weather is mostly impossible owing to the size of the plants; mulching is often unnecessary. Dibbling is quicker, and avoids all the labour of transplanting and watering. The transplant probably gives the bigger plant within the first year or two, but dibbling gives a plant that does not want more than two or at the outside three years' tending, the essence of success lying in dibbling early.

These operations, supplemented by tending in later stages where necessary, together with the coincident freeing of teak-coppice, promise to give us a property in the Thána district that for value, if not size, is comparable with the richest in India.

Details of work carried out in each division are omitted as they would convey little and, while being voluminous, would tend to be invidious where all did well according to their ability and circumstances. Figures are sometimes misleading or open to generous acceptance, but the results are highly satisfactory under very difficult circumstances. We do not pretend to be beyond the fringe of things.

Central Circle.

Regular plantations: These comprise the re-stocking of casuarina coupes in Kolába by planting out seedlings grown in nurseries, and the sowing of seed

in the babul coupes of Poona and East Khándesh. Results were generally satisfactory.

Cultural operations.—To meet the demand for tannin materials tarwad (*cassia auriculata*) seed was collected in large quantity and sown in every division, but no results can be recorded owing to the failure of the current year's monsoon.

Plantation work in pits, on mounds, and in ploughed areas received great attention throughout the circle, some divisions attaining success by one method, others by another. Perhaps the most striking results are to be seen in the Poona division, where in the Akola range, after 6 consecutive years' work, the ranger Mr. S. V. Gupchip, who is an enthusiast in the work, can show many miles of raised mounds running along the contours of the hills with most excellent growth of teak, sandal and other species upon them; also large areas covered with young plants raised in combination with field crops. In other ranges too of the same division ploughings and pit plantings have given very good results. In Sátára there are many most promising plantations of teak raised on ploughed lands, especially in the teak bearing forests of the Patan range.

In Kolába, the divisional and sub-divisional officers—the latter, Mr. G. S. Dangi, has unfortunately just fallen a victim to influenza—have for the past three years made great efforts in planting up blank areas in coupes. Every guard has a plantation to make, and all are keen on making them a success; that they have succeeded, the Conservator can personally testify. Over one lákh of new plants are reported to have been raised during the year and to have survived the hot weather, as also more than 30,000 seedlings of the previous two years' operations.

In Khándesh plantation work was on a smaller scale and, in the teak forests at any rate, as remarked under 'natural reproduction', there is less scope for it than in the Deccan and Kolába divisions; still a good deal of useful work was done. The system of planting on raised mounds, so markedly superior in results to any other system in the Akola range in Poona, is being tried and promises to do better than the pit planting in force hitherto. If it would solve the problem of regeneration of the anjan, now a most difficult matter, it would be of great value, but unfortunately the rainfall conditions of the present season will prevent this year's experiment coming to anything.

Southern Circle.

REGULAR PLANTATIONS.

The casuarina plantations on the Kánara and Ratnágiri coast were extended by 17 and 1 acres, respectively, at a total cost of Rs. 2,609 as shown in Form No. 18. All the plantations are reported to be doing well on the whole, though a few trees in the Kasarkod and Kelagnur plantations died from some unknown cause.

CULTURAL OPERATIONS.

Kanara, N. D.—In the pole forest areas, natural seedlings were weeded and many junglewood seedlings were transplanted. In the high forest about 60 acres were planted up with teak, honni, matti and sissum. In one plantation in the Kulgi range, several plants not yet three years old were 21 feet in height, many in two year old plantations having grown up 12 feet. In the same range a small area of 1½ acres was brought under *Taungya* plantation on the Burma method. The area was cleared of trees and burnt and was handed over to villagers to grow *a ragi* crop along with teak plants. About 70 per cent. of the teak plants are alive. It is said that the villagers do not care to extend this system of cultivation to distant parts of the jungle owing to the danger of damage by pig and elephants.

Kanara, E. D.—The planting and tending of teak and junglewood seedlings was carried out as usual in the coupes lately exploited. Some 600,000 seedlings were so tended. In high forest areas about 90,000 teak seedlings were planted in areas recently exploited and burnt over.

Kanara, C. D.—About 285 acres of forest were sown with teak seed. Thousands of teak and matti seedlings were planted in felled areas.

Kanara, S. D.—The casuarina coupe in Kasarkod was planted with seedlings grown in the nursery. In the high forest teak seedlings were weeded and mulched.

Kanara, W. D.—Natural teak seedlings were all successfully tended by mulching and freeing from interfering growth. Teak and junglewood seed were

sown in suitable patches. In the Gund range the first serious attempt was made to introduce extensive regeneration after removal of the over-head cover as well as the undergrowth. Efforts were made to induce both kunbis and Goanese Christians to come to Gund and take up this work on the Burma *Taungya* system, but dislike for the locality proved too strong, so the work is being done departmentally.

Belgaum.—Several thousands of natural teak seedlings were weeded, mulched and shaded, and re-planted in the case of failures. Teak, junglewood and sandal seed were collected and sown in different places and seedlings of all species were transplanted from nurseries. Under Government orders extensive sowings of Tarwad (*cassia auriculata*) were commenced at the close of the year.

Dharwar-Bijapur.—Seeds of different kinds were sown and seedlings transplanted in all the five ranges of the division. Three coupes situated on the banks of the Krishna river were successfully subjected to agri-cum-forestry and as a result good babul seedlings are growing there. Sowing of tarwad (*cassia auriculata*) was also undertaken at the close of the year under Government orders. Divi-divi seed was also sown in naka compounds and plantations.

Ratnagiri.—The casuarina nurseries and plantations at Harnai, Dapoli, Dhamapur and Tondavli were maintained.

Sind Circle.

Regular plantations.—The regular plantations in Sind are those of tali (*Dalbergia Sissoo*); there were 304 acres of regular plantations at the commencement of the year; to these 2 acres were added in Shah Makai in Hyderabad and 1 acre in Bhour in Lárkána, making a total of 307 acres at the close of the year. Thinning operations have been found necessary in the Sadhuja tali plantation in the Sukkur division where some of the older stems have become stagheaded and these trees together with dominated and suppressed stems will be removed in 1918-19; the stems to be removed have been marked and the better classes of the resultant material will be reserved for the Indian Munitions Board, as requested by the Timber Purchasing Officer, Bombay.

In the Hyderabad division the Monument, Miani bungalow, mango and divi divi gardens were maintained at a cost of Rs. 1,127, while the upkeep of the Rahuja garden and nursery in the Sukkur division necessitated an expenditure of Rs. 1,448; from the above gardens a sum of Rs. 709 was realized by the sale of fruits, flowers, seed, vegetables, etc.

Actual operations.—A total of 764 acres of high level lands in all divisions were treated on the system of agriculture-cum-forestry, the assessment paid by cultivators being Rs. 2,193 which was credited by book transfer to the Revenue and Public Works departments. The operations were not oversuccessful in the inducement of forest growth and more personal attention of the Range Forest Officers concerned is necessary at the time of sowing, to see that the forest seed is actually sown by the cultivators according to the terms of their agreements. In one instance in Sukkur where the initial results were unsatisfactory, the Divisional Forest Officer had 145 acres subsequently broad-casted with kandi seed with satisfactory results, the working of the soil in the first instance contributing materially to the success obtained finally.

In exploited coupes 12,302 acres were broad-casted with 3,861-2 maunds of babul and kandi seed; the initial germination was as already mentioned, but the second and unexpected rise of the river late in the season upset calculations. Attention was paid, however, to resowing in many coupes where germination had not been successful and in 'kachas' where the level had silted high enough to sustain forest growth; babul and kandi seed was broad-casted with good results in the Karáchi, Hyderabad and Sukkur divisions, but the frost of January did much damage to the tender seedlings.

(*c*) *Operations for the Improvement of the Growing Stock.*

Northern Circle.

In all divisions a considerable amount of work was done in cutting back ill-formed growth and freeing good growth.

Central Circle.

Systematic work has commenced in the coupes under the revised plan of the Satpuda forests in North and East Khándesh of cutting back all malformed

and diseased teak under 15 inches in girth, with a view to their replacement by sound coppice. The Inspector General of Forests laid great stress on the necessity for this, and each coupe will be taken in hand in the year after felling; the value of the work will of course largely depend on the success that may be attained with fire protection, for it is fires that have caused the forests to be full of this malformed growth and will do so again, if unchecked.

Southern Circle.

In all divisions the usual operations were carried out: creepers were cut, broken trees cut level with the ground, inferior species girdled and improvement fellings made; bamboos interfering with the growth of teak were also cut; thinnings and clearings were carried out in all the casuarina plantations on the Kánara and Ratnágiri coast.

Sind Circle.

These comprised the cutting bark of kamo and khabar creepers and thinnings. Thinnings, which included the removal of dead and fallen branchwood as well as of standing stems, were carried out on extensive scale in the Karáchi division, on a less extensive scale in the Hyderabad division and wherever necessary in the few pole babul forests in the Lárkána and Sukkur divisions. Cleanings, occasionally amounting to thinnings, were also made in patches of babul seedlings 4—6 years old in certain forests of the Shahbunder and Tatta ranges of the Karáchi division. Personal instruction was also given in the matter of tending of young crops in the Hyderabad and Lárkána divisions where the lái had overtopped the young babul in kachas or where it had invaded the babul crop in coupes under regeneration; much good work can be done in this connection by merely breaking over the lái stems which have overtopped the young babul—the operation would certainly result in a smaller proportion of malformed stems and a larger sale yield in the future.

The details of the thinnings are as follows :—

Karáchi.—Three lákhs thirteen thousand eight hundred and seventy cubic feet of babul were cut and stacked departmentally at a total cost of Rs. 5,062-3-8 and the same sold for Rs. 21,286-5-8 which sum, as the sale was held in June, was not received in full during the year under review.

Fourty-eight thousand cubic feet was sold standing for Rs. 1,902.

Hyderabad.—One lákh twenty-two thousand nine hundred and seventy-five cubic feet were sold standing for Rs. 3,905.

Lárkána.—In the Sonabindi forest 1,028 stems marked for removal realized Rs. 1,705.

Sukkur.—Thinnings in the Bindi Dhareja and Muhromari forests realized Rs. 3,144-6-0.

5.—Exploitation.

(*a*) *System of Management.*

(*i*) *Major Forest Produce.*

Northern Circle.

Statement of area of various systems of exploitation in force with percentages :—

Division.	Method of clear felling by Compartment.		Uniform method.		Group method.		Selection method.		Simple coppice.		Coppice with standards.		Method of improvement.		Unworkable area and area not under working plan.	
	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.	Area in square miles.	Percentage of total area under the sylvicultural system.
Panch Mahals ..	..	..	260	78·3	..	..	..	..	..	..	44	13·3	..	..	28	8·4
Surat ..	..	..	..	..	..	..	..	..	..	..	63	8·7	394	54·4	267	36·9
North Thana ..	..	..	343	99·1	..	..	..	..	..	..	..	..	..	..	3	0·9
West Thana ..	..	..	289	96·0	..	..	..	..	..	..	..	..	..	..	12	4·
East Thana ..	..	..	399	87·3	..	..	..	..	..	..	..	..	58	12·7	1	..
North Nasik ..	..	..	..	..	..	..	..	..	..	..	244	49·5	47	9·6	203	40·9
South Nasik ..	..	..	..	..	..	..	247	71·6	..	..	71	20·6	..	..	27	7·8
Nasik sub-division ..	4	1·6	..	..	..	..	..	..	..	..	29	11·2	..	..	225	87·2
Total ..	4	..	1,291	39·7	..	..	247	7·6	..	..	451	13·9	499	15·3	766	23·5

Clear fellings.—These under the uniform method were extended to the Western Mahâls, Godhra and Kalol with a rotation of 60 instead of 30 years with very good results. The scientific rotation has yet to be determined, but that adopted, while being conservative, is near the mark and enables concentration of work while financial results are extremely good.

Selection fellings.—These are nominally confined to the below ghats of the Nasik division but the working of the Dangs forests approximates to such in the absence of the extraction of the ill-formed injaili. Better communications alone can better this state of things.

Coppice with Standards.—This most unsatisfactory system for teak forests is now confined to the Mandvi range of Surat, the Halol range of Panch Mahâls district and above ghats of Násik.

Method of Improvement fellings.—Is prescribed for the North and South Dangs, but the results are dubious; also in the Bulsar-Chikhli range and Anjan forests of North Násik.

Unregulated fellings.—These still occur in Central Dangs and have had to be extended to the North Dangs to provide material for Munitions but, in the latter are almost entirely limited to species other than teak.

Central Circle.

Clear fellings.—These were carried out in the babul forests of the Poona and East Khándesh divisions and in the casuarina plantations in Kolába.

Selection fellings.—There are none in the strict sense of the term.

Improvement fellings take place in the Matheran and Mahableshwar forests, in some of the teak forests in West Khándesh, in the fuel forests of Akola and Lonavla along the ghats in Poona, and in two working circles under the revised Sátpuda plan of North and East Khándesh.

Coppice fellings.—Under this system are worked the majority of the forests in the Circle, including the teak forests in the Poona, Sátára and Kolába divisions, the anjan forests in West Khándesh, and the remaining area under the revised Sátpuda plan, the latter having till now been under improvement fellings.

Unregulated fellings in forests ordinarily consist solely of extraction of material for free grants and departmental buildings, of clearance of dead and dying trees in babul forests, and of a very limited number of sandalwood trees. During the year under report, however, a special felling of junglewood timber for Army requirements was made in West Khándesh. Outside forests, it consisted of the sale of royalty trees in occupied lands in all divisions and of reserved trees in unassessed Government waste in West Khándesh.

Southern Circle.

The particulars of exploitation under the different systems are given below :—

Clear fellings.—These were carried out in the coast casuarina plantations of Kánara Central and Western divisions on an area of 12 acres, realising about Rs. 4,600 or Rs. 383 per acre, as compared with 17 acres exploited last year at an average rate of Rs. 147 per acre. Two babul coupes of Bijápur measuring 13 acres, also exploited under this system, realised Rs. 131 per acre, as against 19 acres sold last year at Rs. 72 per acre.

Selection fellings.—These were carried out only in the Kánara divisions in accordance with the prescriptions of the sanctioned working plans :—

Division.	Number of trees cut.		
	Teak.	Black-wood.	Jungle-wood.
Organized area.			
Kánara N. D.	1,715	21	988
Kánara E. D.	1,977	....	901
Kánara C. D.	148	....	2,960
Kánara S. D.	147	....	547
Kánara W. D. ..	1,088	58	262
Total 1917-18 ..	5,075	79	5,658
Total 1916-17 ..	5,892	152	3,506

The number of both teak and junglewood trees exploited in Kánara Eastern division were much less than last year for want of labour.

Improvement fellings.—

Division.	Number of trees cut.		
	Teak.	Black-wood.	Jungle-wood.
Kánara Northern	12,847	2,140	9,562
Kánara Eastern	5,733	....	....
Kánara Western	572	....	100
Belgaum	246	69	238
Total, 1917-18 ..	19,398	2,209	9,900
Total, 1916-17 ..	14,236	1,749	3,140

Copice fellings.—This is the system most generally in use in the fuel and teak pole forests of this circle; 15,036 acres were worked during the year against 12,362 acres last year:—

Division.	Area in acres.	Revenue per acre.		Quality.
		1917-18.	1916-17.	
Organized area.		Rs.	Rs.	
Kánara N. D.	1,885	93	94	Teak poles, timber and fuel.
Kánara E. D.	1,733	22	19	Teak poles and fuel.
Kánara C. D.	264	28	23	Do.
	104	Departmentally		cut for military fuel.
Kánara W. D.	708	30	22	Teak poles and fuel.
Belgaum	67	149	68	Logs, poles and fuel.
	2,243	80	85	Railway fuel.
Total, 1917-18 ..	7,004	..	..	
Total, 1916-17 ..	6,295	..	..	
Unorganized area.				
Kánara S. D.	430	9	12	Timber and fuel.
	156	Departmentally		cut for departmental fuel depôts.
Kánara W. D.	659	30	37	Railway fuel.
Belgaum	4,662	5	5	Local fuel.
Dhárwár-Bijápur	2,125	5	5	Poles and fuel.
Total, 1917-18 ..	8,032	..	..	
Total, 1916-17 ..	6,067	..	..	

The price per acre realised this year is about the same as last year's in all divisions except Belgaum where, however, it rose from Rs. 68 to 149. This rise is due to the high price of fuel.

Unregulated fellings.—In all the divisions, except Kánara Western division and Ratnágiri, dead and mature sandalwood trees exploited from various jungles were converted into billets of different sorts, which fetched a revenue of Rs. 56,540 as against Rs. 46,482 in the previous year. The rate per khandy of 560 lbs. first-class wood rose from Rs. 422 to Rs. 440.

In the Kánara and Belgaum divisions special fellings were made in suitable areas for supplying the material to the Military Department, Bombay, for war purposes. Details of material supplied are given in section 5-(*b*) (i) below.

Sind Circle.

Clear fellings with some reserves to produce large timber.—Fifteen thousand two hundred and thiry-two acres were exploited under this system in accordance with the prescriptions of sanctioned working plans. The work of the contractors was much hampered at the outset by the high and prolonged inundation of 1917; and the early rise of the river in May and June 1918 has prevented completion in some cases. Also malaria, pneumonia, plague, scarcity and high cost of labour have militated against rapidity and regularity of working, however the class of work done shows an improvement over former years. After exploitation, the branch wood not required for fences was burnt where feasible and advisable.

The writer doubts whether the raising of the maximum girth of babul reserves, as mentioned in the last year's report, will secure the desired object, as the large trees thus reserved are mostly solitary stems and inspection showed that a very high percentage of the same had fallen down either owing to the action of wind or the loosening of the soil by water during the inundation season, babul being a shallow rooted species; it seems desirable that only groups of trees of the size sanctioned and all advance growth in groups and clumps should be reserved.

The reservation of khandi does not secure any object as it is not a timber-yielding species, the wood being readily attacked by insects and clean vigorous coppice is infinitely preferable to old hacked and gnarled seed bearers; besides, kandi reproduces itself freely by coppice and by root suckers and germinates very freely where sown.

Unregulated fellings.—These include the removal of wood in erosion fellings, all wood actually dead or fallen, free grants and wood to meet the demands of the Public Works and other departments. Statistics are as follows:—

The growth on 5,058 acres 20½ gunthas cleared as erosion strips realized Rs. 80,679.

Dead wood was sold in the Sukkur, Hyderabad and Karáchi divisions and realised:—

	Rs.
Sukkur	4,467
Hyderabad	63,120
Karáchi	11,065
Total ..	78,652

Much dead wood that should have been removed in former years in the Hyderabad division had accumulated which accounts for the large realization in that division.

(*ii*) *Minor Forest Produce.*

Northern Circle.

This was worked without fixed plans as public demand required, consistently with the well-being of the forests.

Central Circle.

This is disposed of as occasion demands by deparmental collection and sale, or by farming the right of collection, or on permit. Under the first method mhowra seed and hirda form the main items, yielding respectively Rs. 22,510 and Rs. 8,658; under the two latter, hirda yielded Rs. 10,012, and grass and grazing Rs. 3,20,014. Other minor products: rosha grass, shikekai, leaves, pods and fruits, bamboos, earth and stone, brought the total revenue to Rs. 4,10,876 as against Rs. 3,38,845 in 1916-17.

Southern Circle.

The details of minor products are given in Form No. 20. The systems of collecting revenue remained as before: bamboos, quarry produce and grazing were sold on permits; other minor products were collected by purchasing contractors for a term of one year. The total revenue from this source was Rs. 1,37,774

against Rs. 1,95,789 last year. The decrease occurs under bamboos, grazing fees and tarwad bark farm, and it is fully explained in Chapter III—Financial Results.

A large number of bamboos of different kinds in Kánara and Belgaum, and all the available quantity of tarwad bark in the Dhárwár-Bijápur division, were also extracted by departmental agency for supply to the Military Department as per details given in section 5-(*b*) (i) below.

As no bid was obtained for the harda farm of Kánara E. D. the produce was collected by departmental agency.

Sind Circle.

Form No. 20 gives details. All minor produce was farmed out to contractors as usual.

(*b*) *Agency of Exploitation.*

Departmental Agency.

Northern Circle.

Main fellings.—Confined to North Dángs of the Surat division. One thousand eight hundred and sixty-four logs of teak (2,241 khándis) and 1,304 of other species (1,902 khándis) were removed from the current felling to Songhad depôt.

The outturn of the Subir sawmill was :—

12,247 sleepers .. ..
12, 212 boards .. .. } All teak.
64,265 battens .. ..
39,179 scantlings .. ..

Thinnings.—These were carried out as far as staff permitted at a cost of Rs. 4,805. Anticipated realization for material so extracted will come into the next year and is estimated at Rs. 20,000.

Other operations.—In South Násik a coupe was felled to supply the Trimbak firewood depôt. The material realised was 38,010 c.ft.

In North Thána 1,00,000 bamboos were felled for the Military.

Central Circle.

This method of exploitation is little resorted to nearly all coupes being sold standing. An exception is made in the case of the fuel supply for Mahábleshwár and Matheran; for the former of which 1,11,080 cubic feet were collected departmentally, for the latter 37,822 cubic feet. In Poona also a few coupes for which no purchasers were forthcoming were worked departmentally, as also were dead and wind-fallen trees in the babul coupes, the cost incurred being Rs. 992 for 97,980 cubic feet and the return Rs. 7,235. The special felling of timber for the Army in West Khándesh was made by the same agency, 273 tons being supplied at a cost of Rs. 5,961 and a net profit of Rs. 6,151. Under minor produce mhowra seed amounting to 300 tons was collected and sold in North and West Khándesh, the net revenue being Rs. 6,717, while 163 tons of hirda collected and sold on the share system in the Akola and Rájur ranges of the Poona division realized Rs. 6,276.

Southern Circle.

The works carried out under this head comprise timber and sandalwood brought to depôts for annual sales; fuel supplied to the M. and S. M. Railway for locomotives; other produce cut or collected for the market, for departmental use, or for supply to the Military and other Government departments. The details of all the produce collected by departmental agency are given in the following table :—

	Average of three preceding years.						1917-18.					
	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Receipts.	Balance.	Exploited during the year.	Total.	Disposed of during the year.	Cost.	Receipts.
Major.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
Timber ..	5,93,460	9,89,070	15,82,530	9,07,873	4,47,635	11,72,691	6,90,657	18,38,754	25,29,411	12,59,249	9,76,687	12,01,821
Fuel ..	7,93,689	36,62,588	44,56,277	36,37,505	1,33,111	2,42,754	11,18,903	46,38,276	57,57,179	43,67,541	2,28,164	2,58,164
	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.		
Sandal-wood .. .. value.	751	37,511	38,262	37,402	2,538	37,402	520	58,097	58,617	56,540	3,087	56,540
Minor.												
Bamboos .. value.	..	3,904	3,904	494	3,305	494	10,229	1,20,720	1,30,949	80,655	80,997	80,655
Grass and other minor produce .. .. value.	883	1,289	2,172	1,838	1,142	1,818	313	9,675	9,988	8,232	6,918	8,232

The quantity of timber exploited was 18,38,754 cubic feet against 10,93,661 in the previous year, an increase of 7,45,093 cubic feet. The percentage of timber exploited departmentally to the total outturn was 56 against 47 in the previous year.

The quantity of fuel exploited was 46,38,276 cubic feet against 41,15,014 in the previous year, an increase of 5,23,262 cubic feet. The percentage of fuel exploited departmentally to the total outturn was 45 against 44 in the previous year.

The departmental exploitation of bamboos is an unusual operation and has been undertaken from last year in the Kánara and Belgaum divisions for supply to the Military Department. The revenue from this source was Rs. 80,655 against Rs. 1,484 in 1916-17.

The increase in the outturn of timber, fuel and bamboos is due to special operations undertaken in Kánara and Belgaum for war supply. The following articles were supplied to Munitions during the year :—

Division.	Teak.			Junglewood.			Fuel.	Bamboos of different kinds.	Other produce.			
	Logs.	Poles.	Scantlings.	Logs.	Poles.	Scantlings.			Tent pegs.	Tarwad bark.	'Savar' boxes.	Teak kalags.
	C. ft.	No.	C. ft.	C. ft.	No.	C. ft.	C. ft.	No.	No.	T. M.	No.	No.
Kanara N. D. ..	78,749	..	10,050	6,707	..	471	..	2,71,602	4,480	..	250	334
Kanara E. D. ..	18,878	..	battens 1,00,000 (running feet).	20,683	..	..	..	..	..	..	..	..
Kanara C. D. ..	2,896	..	..	18,022	34,410	..	34,570	68,525	..	..	..	..
Kanara S. D. ..	..	..	..	478	..	..	45,242	20,500	..	..	..	..
Kanara W. D. ..	15,796	15,309	..	37,297	39,789	..	..	1,13,228	..	..	..	..
Belgaum ..	12,285	4,478	..	..	..	..	7,69,512	9,00,845	5,73,740	..	..	..
Dharwar-Bijápur ..	..	..	..	..	..	..	..	..	5,727	76—8	..	..
Total Southern Circle	1,28,554	19,787	cubic ft. 10,050 running 1,00,000 feet.	83,187	74,199	471	8,49,324	13,74,700	5,83,947	76—8	250	334

The outturn of sandalwood depends more or less on the number of mature or dead trees found for extraction. The revenue from this source was Rs. 56,540 against Rs. 46,482 last year.

In the Dhárwár-Bijápur division 76 tons of tarwad bark was collected departmentally for supply to the Military Department, the revenue realised being Rs. 7,936.

In the Belgaum division a small quantity of grass was cut departmentally and sold *in situ* for Rs. 127.

In the Kánara Eastern division 75 khándis of harda of the estimated value of Rs. 1,195 collected departmentally remained in stock for want of a purchaser. The work turned out by the two Government saw-mills in Kánara N. D. was as under :—

Material.		Outturn. 1917-18.	Outturn. 1916-17.
Six feet teak sleepers	Number	14,345	24,172
Seven do.	,,	657	3,190
Teak planks	C.ft.	2,123	4,234
Teak scantlings	,,	9,900	6,303
Teak battens	,,	24,140	11,672
Junglewood scantlings	,,	4,122	4,269
Junglewood battens	,,	963	589
Junglewood planks	,,	253	....
Junglewood paving blocks	,,	10,854	....
Teakwood paving blocks	,,	11,022	....
		Rs.	Rs.
Value of the outturn—estimated		1,27,564	96,286
Charges for running Mills—estimated		61,413	74,182
Net income—estimated		66,151	22,104

Of the three new saw-mills procured at the close of last year for the Kánara Eastern, Central and Western divisions, that of the Eastern division only worked for six months; but, owing to the lack of skilled labour and the want of a saw-sharpening machine for a considerable time, the output was disappointing; there has latterly been some improvement in the output. The work of six months was as under:—

Material.		Outturn.	Value.	Cost.	Net income.
			Rs.	Rs.	Rs.
Teak sleepers ..	Number	3,366	7,059	5,941	1,118
Teak planks ..	C. ft.	448			
Teak battens ..	,,	987			
Teak scantlings ..	,,	1,663			

The saw-mill in Kánara Western division could not commence work before the close of the year. The transport of the boiler and heavy machinery down the Supa-Anshi Ghat road, a most laborious business, was not completed till March, the sinking of a well and foundations, erecting huts and fixing the engine and benches was hardly finished in June, and the water piping could not be fitted till stocks and dies were obtainable. Thus the expenditure in collecting materials, etc., went on increasing without any corresponding revenue being realised, which is regrettable, but could not in the circumstances have well been avoided.

In Kánara C. D. the saw-mill is not yet put up; nothing beyond the erection of an engine shed could be done during the year. A foreman had been appointed, but he resigned his post while he was under training at one of the mills in Kánara N. D. Another, appointed after the close of the year, is learning work at the N. D. Kánara mills preparatory to his erecting the mill in Kánara C. D.

In the month of September, an officer (Mr. I. Dixon) was appointed by Government to supervise the working of the five saw-mills in Kánara. His chief duty during the season was the erection of the mill at Kumbárkop in Kánara N. D. The main work of this mill was the supply of sawn material to Munitions. Junglewood timbers will be sawn at this mill, and marketed after careful seasoning. In this way it is hoped to find markets for species for which there is no demand at present.

The contractor's saw-mill in Kánara E. D. continued to work during the year, the outturn being:—

Teak sleepers	No.	18,404
Teak planks	Cft.	1,657
Teak battens	,,	3,952
Teak scantlings	,,	3,453

Besides the usual wages for sleepers as fixed in the contract agreement, the contractor is allowed $\frac{5}{8}$th share of sale-proceeds of such waste wood as is converted by him into planks, battens and scantlings, the remaining $\frac{3}{8}$th share going to the department. The Government share during the year is estimated at Rs. 6,796 against a similar share of Rs. 4,515 in the previous year.

Twelve pairs of bullocks and four pairs of buffaloes belonging to the department in Kánara N. D. did useful work. They carted metal for roads, sleeper pieces to the saw-mills and bricks, sand and rubble for the building work at Dandeli. Ten pairs of Government buffaloes and bullocks in Kánara E. D., and six pairs of bullocks in Kánara W. D. also did useful work during the year.

The mono-rail used in the Khanápur fuel areas since 1908 was taken up and $4\frac{1}{4}$ miles of the steel rails were sold to the Public Works Department for Rs. 8,771. The mono-rail never worked really satisfactorily.

Sind Circle.

In the Karáchi division 313,870 cubic feet of babul fuel from thinning operations were brought out to Government depôts and were subsequently sold for Rs. 21,286-5-8 or Rs. 67-13-1 per stack of 1,000 cft. The expenditure incurred was Rs. 5,062-3-8 or Rs. 16-2-0 per stack of 1,000 cft. which represents a net return of 325 per cent. Other departmental operations were confined to the supply

of fuel to Government steamers on the Indus. The quantity supplied totalled 77,026 c.ft. at a cost of Rs. 2,618-1-0 which amount was recovered from the departments concerned.

(*ii*) *Purchasers.*

Northern Circle.

All forest produce, except that mentioned above and that removed by privilege holders and free grantees, was removed by purchasers under contract. For quantities and value, see statement under " (c) Outturn and Sources of Forest produce ".

Central Circle.

By this agency is removed the greater part of the produce of the circle.

Two hundred and ninty-one coupes were sold to purchasers for Rs. 3,47,050 as against 214 coupes with a revenue of Rs. 2,54,209 in 1916-17. The increase in the number of coupes was due to fresh areas having been brought under working in Poona, and also to the revision of the Sátpuda plan in North and East Khándesh, under which coupes have been much reduced in area.

Disposal of royalty trees, to the number of 1,65,415 as against 1,74,774 in the previous year, realized Rs. 1,57,839 as against Rs. 1,40,037. This is a source of revenue which must shortly suffer a great reduction, for not only are there now remaining but few trees for disposal in the Deccan divisions, but the clearance of growth from revenue and waste lands in West Khándesh is almost at an end.

Grass and grazing both showed a steady increase, the former from Rs. 1,11,398 to Rs. 1,45,029, the latter from Rs. 1,68,263 to Rs. 1,74,985, or a total increase of Rs. 40,353. The number of animals on which grazing fees were paid was 9,97,194 as against 9,47,862 and 60,758 animals belonging to privilege holders grazed free of charge. The pressure of grazing on the forests is becoming more heavy each year.

Bamboo revenue rose from Rs. 11,086 to Rs. 13,910, that from rosha decreased slightly, but hirda and tarwad bark increased from Rs. 19,817 to Rs. 28,124.

Southern Circle.

Value of produce removed by purchasers was :—

Produce.	Average of past three years.		1917-18.	
	Quantity.	Value.	Quantity.	Value.
Major.	C. ft.	Rs.	C. ft.	Rs.
Timber	911,503	2,83,103	1,389,000	3,04,224
Fuel	6,419,183	98,949	5,683,000	1,26,832
Total ..	7,330,686	3,82,052	7,072,000	4,31,056
Minor.	Number.		Number.	
Bamboos	4,341,003	56,557	2,415,285	27,341
Grass and grazing	....	71,136	....	62,268
Other minor produce	....	55,525	....	48,165
Total ..	....	1,83,218	....	1,37,774
Grand total ..	....	5,65,270	....	5,68,830

The increase in the value of the major produce removed is due to the larger number of coupes sold during the year. The decrease under bamboos is due to temporary stoppage of the permits for bamboos for export trade outside the district in consequence of the departmental supply of bamboos to the Munitions Board, permits for bamboos required for local use being issued only. The revenue under grass and grazing is variable as it is enhanced or remitted according to bad or good forest protection. The receipts under other minor produce show a decrease mainly on account of the departmental exploitation of tarwad bark in the Dhárwár-Bijápur division instead of selling the farm as usual.

Sind Circle.

By this agency the bulk of the produce of the circle is removed. The value of the produce removed by purchasers was :—

Produce.	1917-18.		1916-17.	
	Quantity.	Value.	Quantity.	Value.
Major.	C. ft.	Rs.	C. ft.	Rs.
Timber	270,346	1,47,106	353,557	1,05,527
Fuel	21,163,355	4,53,188	18,489,686	3,01,006
Total ..	21,433,701	6,00,294	18,843,243	4,06,533
Minor.				
Grazing	....	41,036	....	39,934
Other minor produce	....	40,089	....	41,467
Total ..	....	81,125	....	81,401
Grand total ..	....	6,81,419	....	4,87,934

The increased demand for fuel for overseas military requirements and the consequent high prices prevailing in the Province account for the increase in the revenue from major produce. In the case of the annual coupes the average rate per acre rose from Rs. 16.1 to Rs. 30.06.

The increase in the grazing revenue is due to better supervision of collection of fees and the grazing of 750 camels belonging to the Military Department in the forests of the Karachi division for which fees were paid.

The fall in the revenue from other minor produce is due to the poor pod crop of 1918 and less area of cultivation being given out during the year under report ; revenue from lac decreased by Rs. 2,045.

(iii) Rights and Privileges.

Northern Circle.

These were exercised as usual. Forms Nos. 19 and 20 and the statement under (*c*) *outturn and sources of forest produce* give details.

Owing to the scarcity of rainfall the villagers of Nandgaon and Malegaon táluka, Násik district, were given the temporary privilege of plucking anjan leaves to feed their cattle on.

The privilege of lopping all injaili, except 12 species given to the villagers of Peint in the South Násik district experimentally for one year, having been abused by them, was withdrawn.

Central Circle.

The value of the produce removed under this head was Timber Rs. 127, Fuel Rs. 11,985, Grass and grazing Rs. 22,381, Miscellaneous Rs. 3,081.

Southern Circle.

Right-holders do not exist in this circle. The estimated quantity of forest produce removed under privileges and its value are practically the same as in the previous years :—

Produce.	Quantity.	Value.
Major.	C. ft.	Rs.
Timber	300,000	72,000
Firewood	3,041,686	6,46,353
Minor.		
Bomboos	3,000,000	15,000
Grazing	....	3,00,387
Minor produce	....	1,80,000

Sind Circle.

The extent and value of forest produce and grazing enjoyed free under privileges amounted to—

			Value.
			Rs.
Grazing	.. 10,182 animals	..	3,755
Fire-wood	.. 18,692 c.ft.	..	173

(iv) Free Grants.

Northern Circle.

Timber and other forest produce to the value of Rs. 3,776 as against Rs. 4,503 in 1916-17 was granted free.

Owing to the waste and opportunities for fraud involved in these grants a system of money grant is being introduced in cases other than those of private habitations.

Central Circle.

These were made to a value of Rs. 3,500 as against Rs. 3,631 in 1916-17, and for the usual objects such as rewards for fire protection, or for rebuilding houses, temples and schools.

Southern Circle.

The value of forest produce granted free, compared with the average of the past three years, is as under:—

Produce.	Average of past three years.		1917-18.	
	Quantity.	Value.	Quantity.	Value.
Major.	C. ft.	Rs.	C. ft.	Rs.
Timber	35,372	10,121	34,000	8,906
Fuel	33,080	298	29,000	365
Total ..	68,452	10,419	63,000	9,271
Minor.	No.		No.	
Bamboos	62,344	366	72,855	480
Grazing	....	4,763	....	3,238
Other minor produce	....	1,775	....	1,447
Total ..	....	6,904	....	5,165
Grand total ..	....	17,323	....	14,436

Free grants of the year were normal. In Kánara free grants of timber and particularly grazing were liberally made for good forest protection. Free grants were also made for the repairs of houses destroyed by fire or flood. Timber worth Rs. 1,000 was given free from Kánara N. D. for building a Soldiers' Institute in Belgaum.

Sind Circle.

Free grants were as shown below :—

Produce.	Extent.	Value.	
		1917-18.	1916-17.
		Rs.	Rs.
Grazing ..	2,531 animals ..	727	1,091
Minor Produce ..	85 bundles ..	6	19
Timber and fuel ..	11,285 C. ft. ..	1,133	359
	Total ..	1,866	1,469

In addition to the above free grazing was allowed to contractors to the value of Rs. 4,196.

(c) Outturn and Sources of Forest Produce.

Northern Circle.

The outturn from all sources of forest produce for the year 1917-18 compared with that of the previous year was as follows :—

Agency of exploitation.		Material.								
		Timber.		Fuel.		Total wood.		Bamboos.	Grass and grazing.	Minor produce
		Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Value in Rupees.	Value in Rupees.	Value in Rupees.
Government ..	1917-18 ..	315,076	1,36,105	138,832	3,429	453,908	1,39,534	5,568	..	204
	1916-17 ..	109,233	1,25,538	67,969	2,293	177,202	1,27,831	48	..	4,949
Purchasers ..	1917-18 ..	2,189,032	19,10,740	4,984,897	22,204	7,173,929	19,32,944	31,950	1,01,360	58,897
	1916-17 ..	2,333,828	16,86,782	6,179,820	12,338	8,513,648	16,99,120	33,348	98,502	39,216
Free Grantees ..	1917-18 ..	7,561	3,539	..	..	7,561	3,539	..	237	..
	1916-17 ..	8,591	3,365	6,840	55	15,431	3,420	470	..	613
Privilege-holders ..	1917-18 ..	76,220	2,28,660	8,782,280	3,52,000	8,858,500	5,80,660	13,000	3,35,826	57,799
	1916-17 ..	76,220	2,28,660	8,658,571	3,00,635	8,734,791	5,29,295	11,695	3,65,197	36,240
Total of 1917-18 ..		2,587,889	23,79,044	13,906,009	3,77,633	16,493,898	27,56,677	40,518	4,37,423	1,16,890
Total of 1916-17 ..		2,527,872	20,44,345	14,913,200	3,15,321	17,441,072	23,59,666	45,561	4,63,699	81,018

* The number of cattle for which grazing was allowed during the past two years is as under :—

	1917-18.	1916-17.
Free	478,472	479,486
On Fee	511,362	422,595

This is not the full value, some bills sent to the Military Department are yet to be adjudged.

Central Circle.

Comparison for two years is made in the following statement :—

Agency of exploitation.		Material.									
		Timber.		Fuel.		Total wood.		Bamboos.		Grass and grazing.	Minor produce.
		Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Cubic feet in solid.	Value in Rupees.	Number.	Value in Rupees.	Value in rupees.	Value in Rupees.
Government ..	1916-17 ..	10,808	2,320	342,920	28,312	253,728	30,632	155	1	..	10,339
	1917-18 ..	39,721	12,366	359,097	24,913	398,818	37,279	..	..	12	29,660
Purchasers ..	1916-17 ..	822,184	3,86,349	2,947,144	55,206	3,769,328	4,42,055	1,080,050	11,086	2,79,661	37,708
	1917-18 ..	958,386	4,51,568	2,632,726	69,189	3,591,112	5,20,757	1,048,026	13,910	3,20,014	47,292
Free grants ..	1916-17 ..	17,719	2,732	957	47	18,676	2,779	2,485	38	..	814
	1917-18 ..	10,808	2,548	25,960	218	36,768	2,766	8,056	97	..	637
Privilege-holders.	1916-17 ..	316	15	506,819	11,039	507,135	11,054	1,200	3	28,481	2,528
	1917-18 ..	540	127	516,817	11,985	517,357	12,112	2,540	21	22,381	3,060
Total ..	1916-17 ..	851,027	3,91,916	3,797,840	94,604	4,648,867	4,86,520	1,083,890	11,128	3,08,142	51,439
	1917-18 ..	1,009,455	4,66,609	3,534,600	1,06,305	4,544,055	5,72,914	1,058,622	14,028	3,42,407	80,649

Southern Circle.

The total outturn of the year is summarized below :—

Agency of exploitation.	Timber.		Fuel.		Total wood.		Bomboos.		Sandal wood value in Rupees.	Minor forest produce value in Rupees.	Grazing value in Rupees.
	Cubic feet.	Value in Rupees.	Cubic feet.	Value in Rupees.	Cubic feet.	Value in Rupees.	Number.	Value in Rupees.			
Government ..	1,838,754	12,01,821	4,638,276	2,58,164	6,477,030	14,59,985	1,382,446	80,655	56,540	8,105	127
Purchasers ..	1,389,000	3,04,224	5,683,000	1,26,832	7,072,000	4,31,056	2,415,285	27,341	..	48,165	62,268
Free grantees ..	34,000	8,906	29,000	365	63,000	9,271	72,855	480	..	1,447	3,238
Privilege-holders ..	300,000	72,000	3,041,686	6,46,353	3,341,686	7,18,353	3,000,000	15,000	..	1,80,000	3,00,387
Total .. 1917-18 .	3,561,754	15,86,951	13,391,962	10,31,714	16,953,716	26,18,665	6,070,586	1,23,476	56,540	2,37,717	3,66,020
1916-17 .	2,653,661	18,05,143	12,329,700	9,83,837	14,983,361	27,88,980	8,735,845	82,365	46,482	2,36,466	3,78,928

The number of cattle for which grazing was allowed is estimated at—

	1917-18.	1916-17.
Free	34,228	30,569
On fee	374,361	459,461
Total ..	408,589	490,030

The total expenditure incurred under "Management of State Forests" was Rs. 15,28,363 against Rs. 8,24,635 in the previous year.

Sind Circle.

The outturn from all sources of forest produce for the year 1917-18 compared with that of the previous year was as follows :—

	Material removed.						Minor produce.	Grazing.	Total.
	Timber.		Fuel.		Total wood.				
	Cubic feet.	Value in Rupees.	Cubic feet.	Value in Rupees.	Cubic feet.	Value in Rupees.			
Government	29,943	3,437	512,502	10,756	542,445	14,193	4,948	..	19,141
Purchasers	270,346	1,47,106	21,163,355	4,53,188	21,433,701	6,00,294	31,575	38,934	6,70,803
Free grants	7,225	1,086	4,060	47	11,285	1,133	6	4,973	6,112
Privilege-holders ..	..	..	18,692	173	18,692	173	..	3,755	3,928
Total 1917-18 ..	307,514	1,51,629	21,698,609	4,64,164	22,006,123	6,15,793	36,529	47,662	6,99,984
Total 1916-17 ..	367,866	1,07,029	18,797,779	3,12,741	19,165,645	4,19,971	43,308	43,857	5,07,136

The quantity and value of material removed by the Public Works Department from the areas temporarily alienated to its use along bunds and canals were as follows :—

Material.	Quantity.	Value Rs.
Timber ..	30,415 cubic feet ..	2,479
Branch wood bundles ..	84 ..	53
Earth ..	1,602,529 cubic feet ..	400
	Total ..	2,932

CHAPTER III.

FINANCIAL RESULTS.

Northern Circle.

Financial results of the year as compared with those of last year and the average of the past five years are given in the following statement :—

Head.	1917-18.	1916-17.	Average of the five preceding years.
	Rs.	Rs.	Rs.
Revenue	23,25,836	20,39,779	16,91,237
Expenditure .. A ..	2,61,628	1,99,549	2,64,066
Expenditure .. B ..	4,13,168	3,83,804	3,93,868
Total expenditure ..	6,74,796	5,83,353	6,57,934
Surplus	16,51,040	14,56,426	10,33,303

N. B.—The above figures include the following on account of royalties on forest produce from lands outside Forests :—

Revenue .. Rs. 4,91,071

Expenditure (Accurate figures not available as the staff, etc., are the same as for forests.)

Classification of revenue and expenditure of the year 1917-18.

I.—Revenue.

Particulars.		Receipts.	Percentage.
		Rs.	
Major produce	..	20,72,479	89·5
Minor produce	..	1,98,438	8·2
Miscellaneous	..	54,919	2·3
Total	..	23,25,836	100·0

II.—Expenditure.

A

Particulars.		Charges.	Percentage.
		Rs.	
Extension and constitution	..	6,260	2·5
Improvement	..	1,15,880	44·2
Exploitation	..	1,39,488	53·3
Total	..	2,61,628	100·0

B

		Rs.	
Administration	..	43,200	6·5
Executive	..	1,51,024	22·3
Protective	..	4,80,572	71·2
Total	..	6,74,796	100·0

Figures of the various divisions compared with those of last year are as follows :—

Division.	Year.	Receipts.	Expenditure.			Net results.
			A.	B.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.
Panch Mahâls	1916-17 ..	1,58,060	7,825	43,246	51,071	+ 1,06,989
	1917-18 ..	1,87,396	10,903	43,324	54,227	+ 1,33,169
Surat	1916-17 ..	2,01,657	1,05,786	52,386	1,58,172	+ 43,485
	1917-18 ..	2,48,082	1,24,722	62,245	1,86,967	+ 61,115
North Thâna	1916-17 ..	8,04,419	38,110	55,758	93,868	+ 7,10,551
	1917-18 ..	9,81,489	57,815	62,579	80,514	+ 9,00,975
West Thâna	1916-17 ..	3,51,174	14,195	56,819	71,014	+ 2,80,160
	1917-18 ..	2,83,098	21,010	63,620	84,630	+ 1,98,468
East Thâna	1916-17 ..	2,89,209	16,183	60,333	76,156	+ 2,12,693
	1917-18 ..	3,60,631	17,934	62,579	80,513	+ 2,80,118
South Násik	1916-17 ..	1,61,437	9,070	38,666	47,736	+ 1,13,701
	1917-18 ..	1,43,212	11,084	31,285	42,369	+ 1,00,843
North Násik ..	1916-17 ..	68,428	5,885	28,775	34,460	+ 33,968
	1917-18 ..	66,980	5,581	29,103	34,634	+ 32,296
Násik sub-division	1916-17 ..	4,057	761	13,183	13,944	— 9,887
	1917-18 ..	54,054	43,95	24,385	28,780	+ 26,224
Total ..	1916-17 ..	20,40,421	1,99,549	3,83,804	5,83,353	+ 14,57,068
	1917-18 ..	23,25,836	2,61,628	4,13,168	6,74,796	+ 16,51,040
Avergare of past 5 years ..	... ...	16,91,237	2,64,086	3,94,868	6,57,934	+ 10,33,303

The financial results of the year are on the whole satisfactory. The general increase in revenue was due as much to general war prosperity as to demands for the war. Successful traders marked their gratitude to providence by building themselves whitened palaces on the Tapti river and elsewhere and thus did much to keep up the price of a class of timber not otherwise in great demand.

There is little to be said of districts in detail. The fall in West Thâna was due to postponement of sales of some gurcharans pending the introduction of the

new plan. The rise in Násik sub-division was chiefly due to exceptional prices received for tarwad bark.

Central Circle.

Excluding special grass operations, the financial results of the past two years, and the average of the five preceding years are as follows :—

	Revenue.		Expenditure.		Surplus.
	Rs.		Rs.	Rs.	Rs.
1917-18 ..	10,47,251	A.	1,43,349	5,62,247	4,85,004
		B.	4,18,898		
1916-17 ..	8,83,598	A.	1,14,897	5,21,638	3,61,960
		B.	4,06,741		
Average 1912-13 to 1916-17.	8,00,154	A.	1,27,011	5,24,181	2,75,972
		B.	3,97,170		

Thus the gross revenue increased by Rs. 1,63,653 and the surplus by Rs. 1,23,044, in spite of an increase in expenditure of Rs. 40,609. Every division shared in the increase in gross receipts and, with the exception of Poona, in expenditure, while in Sátára alone was there a small falling off in the surplus. Comments on each division are given below.

East Khándesh.—Gross receipts increased by Rs. 37,198, expenditure by Rs. 13,008, and the surplus by Rs. 24,190. Grass and grazing is the main revenue producing factor in this division, and the satisfactory results of the year are almost entirely due to it, though bamboos and minor produce generally were also in better demand. Major produce showed a falling off; timber receipts slightly improving, but those from fuel decreasing by Rs. 10,220, due probably to stoppage of the permit system and to the public not yet having accustomed themselves to purchasing from contractors, who, accordingly, were unwilling to pay high prices for the fuel coupes. The division exports but little forest material and so was not affected to any extent by the general rise in prices.

North Khándesh.—Gross receipts increased by Rs. 12,574, expenditure by Rs. 1,824 and the surplus by Rs. 10,750. Every form of forest produce contributed, but, as in East Khándesh, it was grass and grazing that was mainly responsible for the rise in receipts. This division too is very isolated for export purposes, and its revenue suffers accordingly.

West Khándesh.—The timber forests being situated close to a railway, coupes, as was only to be expected, were in great demand. Gross receipts rose by Rs. 52,257, expenditure by Rs. 13,944 and the surplus by Rs. 38,313. The mhowra seed crop was also a very good one, and the market price higher than in the previous year. Grass and grazing receipts also improved. The special supply of timber to the Army too brought in Rs. 12,112 increased revenue.

Poona.—Gross receipts increased by Rs. 14,157, expenditure decreased by Rs. 5,055, the latter being mainly due to a provincial officer being in charge of the division for a portion of the year, and the surplus increased by Rs. 19,212. Good prices were received for teak coupes and every class of material, and extraneous revenue was received from the clearance of lands to be submerged under the Andhra Valley Scheme, and of a babul forest which was to be handed over to the Poona Military Dairy Farm.

Sátára.—This division showed a surplus of Rs. 13 only, the area of revenue producing forests whether from timber or fuel being extremely limited. A small rise of Rs. 3,378 in gross receipts was more than counterbalanced by an increase in expenditure of Rs. 4,772.

Kolába.—Gross receipts increased by Rs. 45,557, expenditure by Rs. 3,839 and the surplus by Rs. 41,718. The main factor was the keen demand for timber and fuel from coupes, the situation of the division with sea transport to Bombay much facilitating export. Minor produce also showed improved results, but grazing revenue suffered from cattle disease which is so prevalent in the district; this factor greatly increases the difficulties of contractors, and but for it coupe revenue would show even better results than it does.

Further classification of the revenue and expenditure of the year is as follows :—

I.—REVENUE.

Head.		Receipts.	Percentage.
		Rs.	
Major produce	..	5,58,040	53·28
Minor produce	..	4,89,211	47·66
Total	..	10,47,251	100.

II.—EXPENDITURE.

A.

		Rs.	
Extension and constitution	..	4,472	3·11
Improvement	..	91,294	63·68
Exploitation	..	47,583	33·19
Total	..	1,43,349	100.

B.

		Rs.	
Administration	..	58,230	13·90
Executive	..	1,30,642	31·18
Protective	..	2,30,026	50·48
Total	..	4,18,898	100.

Southern Circle.

Form No. 24 shows the details of revenue and expenditure of the year. The following statement compares the total financial results of the year with those of the previous year and with the average of the preceding five years :—

Year.	Revenue.	Expenditure.			Surplus.	Percentage of surplus to gross revenue.
	Rs.		Rs.	Rs.	Rs.	
1917-18 ..	22,31,441	A ..	15,33,833	19,50,876	2,80,565	13·
		B ..	4,17,043			
1916-17 ..	23,57,731	A ..	8,37,221	12,45,406	11,12,325	47·
		B ..	4,08,185			
Average of 1911-12 to 1915-16.	18,73,039	A ..	6,92,202	10,71,096	8,01,943	43·
		B ..	3,78,894			

The above shows a heavy decrease in receipts and considerable increase in expenditure as compared with the previous year. The surplus which has fallen from 11·1 lakhs to 2·8 lákhs is shared in by four divisions, Northern and Eastern Kánara, Belgaum and Dhárwár-Bijápur. The decrease in receipts was due to the fact that there was a large outstanding due to the department from Munitions on account of timber and various other kinds of forest produce supplied during the year. The increase in expenditure was largely due to the construction of a Forest Railway and improvements in communications and to extensive operations undertaken throughout the circle for supplying military requirements. Notwithstanding these unusual items of expenditure, both the gross revenue and the surplus of the year would have compared favourably with the record figures of last year, had all the outstandings been fully adjusted during the year.

In spite of the fact that the total outturn of timber by Government Agency increased from 1,093,661 cubic feet to 1,838,754 cubic feet and that of fuel from 4,115,014 to 4,638,276 cubic feet there is a heavy deficit in three Kánara divisions. This is mainly due to two causes. Failure of Munitions to pass bills in reasonable time and the difficulty experienced by purchasers in getting timber away both on the railway and on the coast. Boats and goods waggons were

not obtainable when wanted. Many orders by Munitions were received well on in the working season. Divisional Officers did their utmost to meet these demands. These works naturally upset the finance of the circle and outstandings on account of Revenue exceed 11½ lákhs, of this 5 lákhs is due from Munitions. The prices charged to Munitions are generally far below what might have been obtained in the open market. Even after reserving the best timber for Munitions the prices obtained in public auction at Távargatti and Kirwatti depôts ranged from 25 to 60 per cent. higher than those of the previous year. During the year there was no advance in the rates for timber supplied to Munitions, and the prices at which Munitions were supplied were no advance on pre-war prices. Again the Railway Company were supplied with fuel by contract at Rs. 8 a 100 cubic feet, a rise of 14½ per cent. on the pre-war rate. This railway rate was more than 50 per cent. below the market rate. Against this the Forest Department had to face the enormous rise in wages, a rise often amounting to 100 per cent. of pre-war wage rates. The price of a cart rose to Rs. 120, double its pre-war value. Rice straw for bullocks, formerly sold at Re. 1, was difficult to obtain for Rs. 10 per cart-load.

The following statement compares the revenue and expenditure of the year in details of budget heads with those of 1916-17 :—

Budget heads.	Amount.		Difference.
	1917-18.	1916-17.	
	Rs.	Rs.	Rs.
Receipts I	16,05,412	17,09,697	— 1,04,285
II	5,68,830	5,94,890	— 26,060
III	352	253	+ 99
IV	11	11	....
V	56,836	52,880	+ 3,956
Total, Receipts ..	22,31,441	23,57,731	— 1,26,290
Expenditure—A-I	12,95,853	6,69,562	+ 6,26,291
II	9,344	6,463	+ 2,881
III	87	73	+ 14
VI	13,595	10,175	+ 3,420
VII	1,43,601	78,442	+ 65,159
VIII	57,150	55,591	+ 1,559
IX	14,203	16,915	— 2,712
Total A ..	15,33,833	8,37,221	+ 6,96,612
Expenditure—B-I	3,58,322	3,51,387	+ 6,935
II	44,390	43,192	+ 1,198
III	14,331	13,606	+ 725
Total B ..	4,17,043	4,08,185	+ 8,858
Total, Expenditure ..	19,50,876	12,45,406	+ 7,05,470

Revenue.

The gross receipts decreased by 1·26 lákhs as compared with last year's figures, most of the decrease occurring under the main revenue heads I and II as shown above. The decrease under I is due to the value of the material supplied to the Military Department not being fully adjusted during the year. The temporary stoppage of bamboo permits to traders in all divisions and no sale of the tarwad bark farm in the Dhárwár-Bijápur division owing to the departmental extraction of both these products for war purposes account for the decrease under budget head II. Larger remissions of grazing fees also decreased the revenue to some extent. The small increase under V is due to sale of wire

to the Telegraph Department in the Dhárwár-Bijápur division, and to sale of monorail materials to Public Works Department in Belgaum.

Expenditure.

The total expenditure under A increased by Rs. 6,96,612 over the last year's figures, most of this increase Rs. 6,26,291 occurring under head I, as under :—

	Rs.
Under I—due to part cost of the Alnáwar-Dándeli forest railway line 19½ miles—debited in Kánara N. D. during the year	2,75,444
Departmental exploitation of timber for war purposes in Kánara and Belgaum	1,70,961
Do. do. fuel, do. ..	66,965
Do. do. bamboos do. ..	71,081
Do. do. tarwad bark in Dhárwár-Bijápur	6,262
Saw-Mill parts and accessories of the three new saw-mills locally procured last year debited during the year ..	35,578

Under II—due to greater expenditure incurred on marking coupes for exploitation in Kánara Northern and Western divisions and Belgaum ;

Under VI—due to greater expenditure on upkeep of Government cattle in Kánara Northern and Western divisions and on saw-mill accessories procured in Kánara Northern, Eastern and Western divisions ;

Under VII—due to improvements in forest roads and bridges Rs. 58,881, and cost of depôt buildings at the forest railway terminus at Kumbarkop in Kánara N. D. and subordinates' quarters at Yellápur in Kánara E. D. Rs. 6,278 ;

Under VIII—due to cultural operations undertaken in all divisions on an extensive scale, all possible savings under demarcation, fire protection, working plans and acquisition of land for forest also being utilised for sowing and planting ;

Under IX—the expenditure decreased by Rs. 2,712 due to failure of the clothing contractor to make full deliveries in time.

The expenditure under " B-Establishments " also increased by Rs. 8,858 over the last year's figures :—

Under I—due to payment of grain compensation allowance to subordinates ;

Under II—due partly to payment of permanent travelling allowance to Round Foresters according to the revised scale and partly to extra expenditure on account of travelling allowance to subordinates for journeys on transfer ;

Under III—due to greater expenditure on postage and telegrams in connection with the supply of timber and other forest produce to Munitions.

The following statement shows the proportion of revenue and expenditure under the different heads :—

Particulars.	Total.	Percentage.
Revenue.	Rs.	
Major produce ..	19,47,944	87·3
Minor produce ..	2,26,661	10·2
Miscellaneous ..	56,836	2·5
Total ..	22,31,441	100·

Expenditure A.

Revenue.	Rs.	
Extension and constitution ..	5,471	0·4
Improvement ..	4,70,724	30·7
Exploitation ..	10,57,638	68·9
Total ..	15,33,833	100·

Expenditure B.

Administration ..	70,318	16·9
Executive ..	1,65,842	39·8
Protective ..	1,80,883	43·3
Total ..	4,17,043	100·

The estimated value of timber and other produce in depôts rose from Rs. 11,84,170 to Rs. 17,19,731 on account of the larger quantities of material on hand at the close of the year.

The value of live and dead stock also rose from Rs. 4,65,766 to Rs. 4,99,987, showing an increase of Rs. 34,221 due to part value of the new saw-mills in Kánara Northern, Eastern and Western divisions purchased at the close of last year being debited during the year under report.

The outstandings of revenue were as under :—

At the close of 1916-17. Rs. a. p.	At the close of 1917-18. Rs. a. p.	
5,93,907 7 9	5,04,456 2 0	due from Munitions
....	6,62,044 11 2	due from other purchasers ;
Total ..	11,66,500 13 2	

Eight items amounting to Rs. 715-5-1 were written off as irrecoverable revenue under the orders of the Conservator, as against eleven items aggregating Rs. 1,477-8-3 written off last year.

The outstandings due to the department by contractors and disbursers stood at Rs. 3,97,828-7-6 against Rs. 2,22,837-15-10 at the end of the preceding year. The increase is due to unusually large number of unfinished special contracts for war supplies.

Sind Circle.

The financial results of the year as compared with those of last year and the average of the preceding five years are given in the following statement :—

Year.	Revenue.	Expenditure.		Surplus.	Percentage of surplus to gross revenue.
	Rs.	Rs.	Rs.	Rs.	
1917-18 ..	7,33,051	A. .. 40,583 B. .. 1,95,144	2,35,727	4,97,324	67.8
1916-17 ..	5,34,270	A. .. 34,933 B. .. 1,82,170	2,17,103	3,17,167	59.3
Average of 5 years 1911-12 to 1915-16.	4,15,276	A. .. 39,696 B. .. 1,76,159	2,15,855	1,99,421	48.0

The gross revenue and surplus have beaten all previous records and the above statement shows that there was an increase in the receipts and surplus as compared with the corresponding figures of the previous year and the average of the preceding five years. Though the expenditure has increased by Rs. 18,624 over the last year, the percentage of net revenue has increased from 59.3 to 67.8 mainly on account of the higher prices received for the coupes and dead wood put up for sale and the larger areas that were threatened with erosion by the river and the higher prices received for the resultant material.

The following statement compares the revenue and expenditure in details of the different budget heads with those of 1916-17 :—

Budget heads.	1916-17.	1917-18.	Difference.
Receipts I	16,678	19,236	+ 2,558
II	4,87,933	6,81,420	+ 1,93,487
III	871	786	— 85
IV	....	....	....
V	28,788	31,609	+ 2,821
Total receipts ..	5,34,270	7,33,051	+ 1,98,781
Expenditure A—I	7,948	8,087	+ 139
II	848	723	— 125
III	....	1	+ 1
VI	1,143	1,288	+ 145
VII	6,172	11,739	+ 5,567
VIII	14,497	13,518	— 979
IX	4,325	5,227	+ 902
Total A ..	34,933	40,583	+ 5,650
Expenditure B—I	1,51,375	1,59,954	+ 8,579
II	20,333	22,759	+ 2,426
III	10,462	12,430	+ 1,968
Total B ..	1,82,170	1,95,143	+ 12,973
Total of expenditure ..	2,17,103	2,35,726	+ 18,623

Revenue.

The gross revenue shows an increase Rs. 1,98,781 over that of the previous year mainly under Revenue head II ; the increase was due to the following causes :—

(i) Better prices realized from the sales of the annual coupes and dead wood owing to an increased demand for overseas military fuel supply.

(ii) More departmental thinning operations for the resultant material for which good prices were realized.

(iii) Heavier erosion caused larger areas to be cleared than in an ordinary season, and here again higher prices were received for the resultant material.

Expenditure.

The increase of Rs. 18,624 in expenditure over last year is due to the following reasons :—

(i) The construction of an inspection bungalow at Khanote in the Hyderabad division.

(ii) Grant of grain compensation allowances to low-paid servants and war allowances to the clerical and menial staff whose headquarters are at Karáchi.

(iii) The entertainment of eight additional rangers sanctioned in Government Order, Revenue Department, No. 335, dated 22nd January 1918.

The following statement gives the proportion of revenue and expenditure under the different heads :—

Particular.		Total.	Percentage.
	Revenue.		
		Rs.	
Major produce	..	6,22,195	84·9
Minor produce	..	1,10,856	15·1
Total	..	7,33,051	100·
	Expenditure A.		
Extension and constitution	..	5,227	12·9
Improvement	..	26,544	65·4
Exploitation	..	8,812	21·7
Total	..	40,583	100·
	Expenditure B.		
Administration	..	31,433	16·1
Executive	..	58,928	30·2
Protective	..	1,04,783	53·7
Total	..	1,95,144	100·

The revenue outstanding at the close of the year was Rs. 79,548 as compared with Rs. 25,334 on the same date last year; this represents instalments due by coupe contractors and others, which were not due or recoverable until after the close of the year, as the collection of coupe revenue tendered in any particular year in Sind is spread over two years.

Rupees 2,214 on account of the lac-contract of the Karáchi division for the year 1908-09 are still outstanding and the question of its recovery is awaiting the decision of the appeal filed by the contractor Bhai Jethmal in the court of the Sessions Judge, Hyderabad, to whom the case has been referred on appeal by the Court of the Judicial Commissioner in Sind.

CHAPTER IV.

RESEARCH AND EXPERIMENT.

Northern Circle.

The chief effort of the year was the collection and sowing of tarwad and its distribution from Rangoon to Baghdad practically throughout India. Results have been delayed by lack of rain, but there is reason to hope that much of the seed sown will lie dormant till next year. As already stated special report is to be made in December. Once we can establish the propagation of tarwad on a commercial basis the areas yielding this valuable commodity will be placed under an organized plan whereby the bark is exploited at the best stage and by the most economical methods.

Central Circle.

The extension of tannin-producing species received attention. In Kolába divi-divi seed was sown in the forests and plants raised in a nursery for transplanting later. In all divisions but Kolába tarwad seed was collected and sown on a large scale, but the failure of the monsoon will prevent any results being obtained.

In North Khándesh Mr. Starte continued his experiments with the introduction of various species of *Eucalyptus*, *Grevillea* and *Casuarina* at Toranmal, and

with the last named in Taloda, all promising very well. The localities are unfortunately not those where firewood is of much value, but if a *Eucalyptus* could be found which would thrive at Toranmal, it might do equally well on the Mahábleshwar and Panchgani plateaux, and help to solve the very difficult question of the fuel supply at those places.

No fresh work was done with Salai tapping, but full results of the experiments of the previous year were communicated to the Forest Economist.

Specimens of *Anogeissus latifolia* and *Terminalia arjuna*, held locally in North Khándesh to be quite distinct from the ordinary varieties, were sent to the Forest Botanist for investigation.

Mr. Starte conducted useful experiment, on lines recommended by the Inspector General, into the coppicing powers of the anjan, a point of much importance seeing that normally about 22 per cent. of trees felled fail to reproduce themselves. So far as he has gone at present, the girth factor seems to be of no consequence, and it remains to be seen whether the season of felling, and the height of felling of the tree above ground, produce any definite results.

Southern Circle.

Owing to shortage of Officers and heavy war supply work, research work and experiments could not be undertaken.

(i) Research.

Charcoal-making and wood-distillation.—The Industrial Inspector, Kolhapur (Mr. Shaligram), to whom the following species of woods were sent from Belgaum division to be tested for charcoal and by-products, communicated the following results :—

Name.	Charcoal per cent.	Pyroligneous acid per cent.	Tar per cent.	Combustible gas per cent.	Remarks.
Teak (*Tectona grandis*)	28	29.6	2.7	30	Charcoal soft and porous.
Kharsing (*Steres spermum Xylocarpum*) .	30	35	2.9	28	Charcoal hard.
Jamba (*Xylia Xylocarpa*)	32	36	3.4	27	Charcoal hard and heavy.
Hela (*Terminalia belerica*)	27	30	3.6	36	Charcoal soft.
Biba (*Semecarpus anacardium*) ..	27	29	3.	35	Do.

The purchase of a wood-distillation plant costing Rs. 5,000, for use in the Belgaum division, has been provided in the budget estimate for 1918-19, but it was thought inadvisable to attempt distillation at present.

(ii) Experiments.

Timber-seasoning.—The final inspection of the scantlings sawn under the Forest Economists seasoning experiments at Kodibag (Kánara W. D.) was carried out, a detailed report being sent to that officer.

He again visited the Kánara N. D. to continue his seasoning experiments. The results are awaited.

Junglewood sleepers for railway line.—The trial lot of matti (*Terminalia tomentosa*) sleepers supplied from Kánara W. D. to the N.-W. Railway in 1911 was again favourably reported on.

A small lot of Jamba (*Xylia dolabriformis*) sleepers cut from large green trees in Kánara W. D. were stacked in shade for 9 months to see how they compared with those cut from smaller trees in 1914-15 which were such a signal failure. The same faults of heart shake and bad cracking were observed in the experimental sleepers.

Wood-blocks for street pavement.—As a successful result of the experiment begun in 1915, the Bombay Municipality ordered a fresh consignment of paving blocks from Kánara N. D.

Sind Circle.

The following exotics were experimented with :—divi-divi (*Cæsalpinia coriaria*).—The Government of India having expressed a desire for the extension of divi-divi plantations, a small quantity of the seed was procured

and experimented with in the Rahuja garden (Sukkur) bungalow garden at Miani (Hyderabad) and Khatro plantation area (Karachi); the seed germinated well in all three instances and gave the best results in Khatro where 300 transplants are now thriving.

Eucalyptus cirtriodora germinated well at Rahuja and three plants of *Eucalyptus stuartiana* are thriving in the Kotsultan plantation (Shikarpur).

Olea cuspidata.—Out of 100 olive plants obtained from Lahore, 60 were planted out in the Rahuja garden and are reported to be doing only moderately well, the remaining plants died on the way from Lahore to Sukkur.

Tarwad (*Cassia auriculata*).—Tarwad seed was obtained from the Presidency and experimented with in all divisions. The results can only be said to be favourable in the Karáchi division where seed was sown along with tobacco cultivation in Khatro and in a small departmental sowing in Khathar forest; a good many seedlings have been raised in both cases, they were affected by frost in December and January to some extent but most of them revived and were from three to six inches in height in April last. The severe frost of middle and upper Sind killed off the young seedlings and tarwad in its early stages in Sind assumes a much more elongated and consequently a more tender and succulent stem than in the Deccan and is consequently more liable to injury from frost which inclines one to doubt whether the upper half of the Province will prove a centre for the successful propagation of the species. Tarwad is essentially a light demander and it would not thrive in the dense shade of the riverain babul areas in the lower half of the Province.

Babul has a toxic action and in a well stocked area the ground is usually bare of all vegetation; in such forests tarwad could only be propagated on a large scale by the exclusion of tree growth and under present-day conditions of working such areas to the utmost possibility for fuel this is hardly a policy to be adopted. It will not pay to grow tarwad in odd places and small areas here and there; it should be concentrated on large blocks of land with easy access to rail or river transport and the lands most suited for the purpose are the banks of large canals and waste and uncultivated irrigable lands lying along the canals.

Twenty-four maunds of tarwad seed have been obtained from the Conservator of Forests, Northern Circle, and distributed to all divisions in the circle for experimenting with during the current abkalani.

Lac.—In the Hyderabad division attempts were again made to propagate lac but with only partial success; out of trees inoculated in the forests of Khanote, Ghali, Sekhat, Murid Rais, Jakhri and Unerpur, lac spread over only a few trees in each forest but the experiment is being repeated. In the Karáchi division attempts were made to propagate lac during the summer swarming of the insect in various forests of the Katier range but the operations were interfered with by high floods and the success attained practically nil.

CHAPTER V.

ADMINISTRATION.

Northern Circle.

The circle was held by Mr. W. F. D. Fisher throughout the year.

The divisional charges were held as follows:—

Panch Mahals, Surat, West Thána and North Násik by Messrs. B. J. Patel, A. C. Hiley, B. H. Dalal and H. A. Bhadbhade respectively throughout the year.

North Thana.

Mr. W. E. Copleston till 13th December 1917.
Mr. D. A. Thomson from 14th December 1917 to 13th January 1918.
Mr. E. M. Hodgson from 14th January 1918 to 19th April 1918.
Mr. R. W. Inder from 20th April 1918 to 27th May 1918.
Mr. C. Gilbert from 28th May 1918 to 30th June 1918.

East Thana.

Mr. P. E. Aitchison till 3rd December 1917.

Mr. B. H. Dalal from 4th December 1917 to 13th January 1918.

Mr. C. Gilbert from 14th January 1918 to 30th June 1918.

South Nasik.

Mr. J. B. Brooks till 7th November 1917.

Mr. P. E. Aitchison from 8th November 1917 to 3rd December 1917.

Mr. H. A. Bhadbhade from 4th December 1917 to 2nd May 1918.

Mr. W. A. Miller from 3rd May 1918 to 30th June 1918.

Working Plans.

Mr. P. E. Aitchison till 3rd December 1917.

Mr. W. F. D. Fisher from 4th December 1917 to 30th June 1918.

The Násik sub-division (independent charge) was held by Mr. L. S. Kṛpikar throughout the year.

Sub-divisional Officers.—Mr. K. E. Kotwal held charge of the Surat sub-division throughout the year and Messrs. R. K. Kanitkar and V. G. Bhalerao of the East and West Thána respectively.

Extra Assistant Conservators on probation were :—

Mr. N. C. Ramchandani was in charge of the Godhra range till 3rd January 1918, when he was appointed in the Dangs to assist the Divisional Forest Officer and held charge of the Galkund range in addition. He was subsequently made Sub-Divisional Officer, Dangs, with retrospective effect from the date above mentioned.

Mr. Y. R. Divekar held charge of the North Thána sub-division throughout the year.

Mr. Madan Lal Khanna on his arrival from Dehra Dun in April was placed under the Divisional Forest Officer, East Thána, but subsequently given charge of the Násik range from 16th May 1918.

Divisional offices were all examined during the year, except West Thána which was examined early in July 1918. No serious irregularities were noticed. The establishments worked satisfactorily. All individuals with very few exceptions did their best. This does not mean that offices are efficient. Re-organization is badly needed.

The protective establishment as a whole continue to deteriorate and were it not for the good conduct of individuals and general discipline, matters could hardly be worse. The following casualty list should be examined in conjunction with the fact that the rules demand that a man complete 30 years' service for full pension.

Casualties.—22 deaths, 23 resignations, 21 dismissals and 26 " services dispensed with " or a total wastage of 10·3 per cent. of the staff as against 8 per cent. in the last year.

N.B.—Deaths not above the average. No casualty was due to war directly or indirectly.

Discipline.—Besides dismissals, etc., above mentioned there were degraded 13, suspended 5, and fined 306.

Recruitment.—

(*i*) *Provincial Service.*—One student arrived from Dehra Dun in April and was placed under the Divisional Forest Officer, East Thána. Soon after owing to the shortage of rangers he was put in charge of a range.

(*ii*) *Rangers.*—One student arrived from Dehra Dun in April. Three probationers are under training and six were selected and sent to Dehra Dun for training; unfortunately two of these last died of influenza. Owing to the shortage of rangers two probationary extra assistants, the raw ranger recruit and two foresters not up to ranger's standard had to be given rangerships and extension had to be granted to a ranger who is really past work.

(*iii*) *Subordinate Staff.*—In the words of a Divisional Forest Officer well qualified to judge "the only recruits available are from individuals who through sheer laziness or incompetence are unable to earn a living elsewhere". The Conservator regrets to say that the statement is substantially true.

There were two defalcations of Government money during the year. In the first a junior clerk after misappropriation of revenue cleared out the range cash box and absconded. In the second a guard wrongfully entrusted to cash a cheque for Rs. 500 absconded with the money after cashing the cheque.

The relations between Revenue and Forest departments were uniformly satisfactory throughout the year.

Central Circle.

Mr. L. Napier held charge of the circle throughout the year, as also did Mr. Starte of North Khándesh division, Mr. Rebeiro in the Working Plans Division, Mr. Dalia in Kolába, and Mr. Gonsalves in West Khándesh, except for three months when ill-health forced him to take leave and Mr. Rebeiro held additional charge, and Mr. Pethe in East Khándesh. The circle lost two experienced officers by the transfer of Messrs. Thomson from Poona and Gilbert from Sátára, their places being taken by their sub-divisional officers Messrs. Joshi and Master. Mr. Dangi, a most capable and hard working officer whose recent death from influenza is a great loss, was sub-divisional officer in Kolába throughout the year, as were Messrs. Shirali, Sampson, and Patkar in West, East and North Khándesh. All officers worked with energy and enthusiasm.

Several rangers are mentioned for specially good work by their divisional officers; that of Mr. Gupchip on plantations in Poona has already been referred to; in West Khandesh, on Army grass work, Mr. Alekar did particularly well under very trying conditions. But the general standard of rangers is not high; many are untrained men and the greatest difficulty is experienced in replacing casualties, so much so that it has been found impossible to create the extra ranges that Government sanctioned during the year. One ranger from Dehra Dun joined the circle, having obtained an honours certificate, while another under training had to leave the college owing to ill health, but has been given a forester's post.

The foresters' class was held in Poona, 12 students out of 14 obtaining certificates.

The lower subordinate staff was in many divisions under strength owing to the difficulty of recruitment, a difficulty which with the rise in the cost of living and the demand for labour, is increasing daily.

Office establishments are generally reported to have worked satisfactorily. This was certainly the case with the Conservator's office under Mr. G. L. Oke, head clerk.

Casualties were high, 19 deaths including 3 range officers, 35 resignations, 35 dismissals and 20 retirements. A forest guard was murdered in the Sátára division.

The case in East Khándesh of misappropriation of Government money by a depôt officer, mentioned in last year's report, resulted in the accused being sentenced to six months' imprisonment.

In-forest settlements in North Khándesh were maintained with the same successful results as in recent years. The department derived much advantage from the labour supply available from them for forest works, while the careful cultivation and the demand there is for the formation of new settlements, is the clearest proof that they are well administered by Mr. Starte and his assistant officers. In East Khándesh where the necessity for a resident population in the otherwise uninhabited Satpudas is even more required, the settlements in spite of all efforts must be set down as a failure; for one thing the cultivable land is neither so plentiful nor of such good quality as in North Khándesh, for another there is no cultivating class, such as the Pavra, willing to live in the hills. One settlement was entirely deserted during the year and two others are in little better condition; three new settlements were started, but whether they will be a

permanency is doubtful, for the class of men, mostly Tadvis and Nihals, who have taken up land are of no cultivating capacity. The difficulty experienced in this division tells heavily against fire protection and road work in these hills.

The Akrani was administered by the Divisional Forest Officer, North Khándesh, with the range forest officer as Mahalkari. The Collector remarks that under Mr. Starte's sympathetic administration, "it pursued the even tenour of its way." The need for a dispensary at Dhadgaon, both in the interests of the fairly large official population and of the people, is a matter which it is hoped may be taken up after the war; the Collector writes that he has suggested that it is an object which deserves a grant from the large funds derived from the auction of the liquor shops in the district. The land revenue continues to rise and the collection of tagai outstandings was satisfactory and none had to be written off. Crops were good, and there were no epidemic diseases amongst men or cattle. Education progressed so far as the Mission School was concerned, but the working of the Government primary school is said to have been unsatisfactory, no doubt owing to the difficulty of finding a suitable man to remain at Dhadgaon.

Southern Circle.

Mr. T. R. Bell, Senior Conservator of Forests, continued in charge of the circle for the first half of the year up to 16th December 1917, when he assumed the office of the Chief Conservator of Forests, newly sanctioned for the Bombay Presidency during the year.

From 17th December 1917 the charge is held by Mr. W. E. Copleston.

Messrs. Dodgson, Edie, Marjoribanks, Butterworth, Limaye, and Koppikar continued in their charges of Kánara North, Kánara East, Kánara West, Kánara Central, Kánara South and Dhárwár-Bijápur divisions, respectively, throughout the year. For three months from 7th November 1917, however, during Mr. Limaye's absence on privilege leave, his charge was administered by Mr. Butterworth in addition to his own.

Mr. Miller continued to hold the Belgaum division for the first ten months up to 30th April 1918, after which he proceeded on transfer to South Násik division in the Northern Circle. Mr. Hodgson succeeded him and held the division for the remainder of the year.

The Working Plans division was held by Mr. Miller, Divisional Forest Officer, Belgaum, up to 19th January 1918, after which it was held by the Conservator, no independent Imperial Officer being available.

Mr. N. E. Shrigley, Extra Assistant Conservator of Forests, posted to the Southern Circle, was sent to Kánara Western division as Sub-Divisional Officer, which office he held from 28th December 1917 to the end of the year.

Except a few minor transfers within the circle, no other changes occurred among the Sub-Divisional Officers Messrs. Hattiangadi, Hemmadi, Bendigeri, Tuggarse and Saldanha.

The existing staff of rangers, 36, was, during the year, strengthened by an increase of 15 men in different grades under Government Orders with effect from 22nd January 1918 with a view to closer supervision and more intensive working of forests. Of the total number of 51 rangers at present, 5 are foremen in charge of five Government Saw-mills in the Kánara divisions.

Forest Students, Dehra Dun.—The four candidates, deputed for the Rangers' course of 1916-18 having passed the final examination, were posted as rangers in Kánara and Belgaum divisions.

For the Rangers' course of 1918-20 four candidates were nominated and sent up to Dehra Dun during the year.

Vernacular Forestry Class, Belgaum.—No class was held during the year.

Inspection.—All the divisions of the circle, except Ratnágiri, were visited by the Conservator during the year, and all the divisional offices were inspected. No serious irregularities were noticed.

Land Revenue Administration.

Kánara N. D.—The four forest mahals of Dandéli, Virnoli, Kulgi and Devikop were administered by the respective rangers as *ex-officio* Mahalkaris throughout

the year. The Divisional Forest Officer states that the villages in these mahals are sparsely populated and there is not much revenue work; the in-forest village which was started at Vincholi last year was increased by two houses, but in spite of all inducement such as free land, free material, free grazing and constant employment, no other villagers could be persuaded to come into the high forest area to settle.

Kanara, E. D.—The three mahals, *viz.*, Bilki, Kirwátti and Kargod, were administered by the respective range officers during the year. The Divisional Forest Officer remarks upon the general air of neglect of lands and cultivation visible everywhere; the Siddis in the Bilki mahal showed a good deal of keenness to take up land direct from the Forest Department, giving up the land which they held from the non-resident land-lord who appears to take little interest in the land and less in the tenants.

Kanara, W. D.—The Supa mahal of 120 villages was administered by the Mahalkari under the supervision of the Divisional Forest Officer as *ex-officio* Assistant Collector. Attempts were made by the Divisional Forest Officer to settle labouring classes such as local kunbis at places suitable for rice or ragi cultivation. Eleven families from the Chandgad mahal of the Belgaum district were induced to settle at Jagulbet where 103 acres of forest were given out. The Divisional Forest Officer took a keen interest in the land revenue administration of the mahal.

Belgaum Division.—The Belgaum range mahal and the Khánapur West range mahál were successfully administered by the respective rangers. Efforts made to induce the villagers to patronise forest works were more successful than last year, 60 carts and 1,500 men from both the mahals going to forest works. Every inducement was given to new settlers.

Betta assignments.—The Divisional Forest Officer, S. D., Kánara, states that the work of betta assignment in his division having been finished, the betta rules laid down in the leases were brought into force from January 1918.

Hunting and Shooting.—The revised game rules, sanctioned for the circle in Government Order No. 4177 of 17th April 1916, were introduced from 1st January 1918. Instead of the circle license issued by the Conservator under the old rules, block licenses and district licenses are issued by the respective Divisional Forest Officers and Collectors subject to Conservator's approval under the revised rules.

Besides the block licenses issued by Divisional Forest Officers for short terms, the number of circle licenses issued under the old rules and district licenses issued under the new rules during the year was 18 and 29 respectively—total 47— against 43 issued last year. No breaches of game rules were brought to light during the year.

Casualties and punishments.

The casualties were :—

Fourteen men—2 foresters and 12 guards—died as against seventeen in the previous year.

Ten men—1 ranger, 1 forester and 8 guards—retired as against twenty-three last year.

Thirty-four guards resigned as against thirty-nine last year.

Punishments.

Year.	Fined.	Degraded.	Suspended.	Superseded	Dismissal.	Prosecuted	Total.
1917-18	270	14	12	26	4	7	333
1916-17	456	13	10	22	6	3	510

Criminal offences.

The particulars of the seven prosecutions instituted during the year are :—

Division.	Subordinate prosecuted.	Charge.	Result of prosecution.
E. D. Kánara ..	1 Guard ..	Fraud	Case pending.
C. D. Kánara ..	1 Guard ..	Do.	Do.
S. D. Kánara ..	1 Guard ..	Assault and theft	Acquitted.
Belgaum ..	1 Guard ..	Illicit shikar	3 months' rigorous imprisonment.
	2 Guards 1 Forester	Illegal collection of grazing fees.	All three discharged.
	7		

Services.

The Divisional Officers and their Sub-Divisional Officers laboured through an unusually heavy season's work.

The growing weakness of the underpaid subordinate establishment rendered matters more difficult than ever for Divisional Officers. With cooli wages rising to 8 annas a day and in some cases even to 10 and 12 annas, Forest subordinates on 8, 9 and 10 rupees were dicontented and only too ready to discard their Forest uniforms. E. D. Kánara suffered in this respect more than any other division, in N. D. Kánara too, 12½ per cent. of the Guards' posts fell vacant for lack of recruits.

Divisional Officers are unable to remove undesirables and have no selection of recruits. It is not surprising to find discipline unsatisfactory and general *morale* deteriorating in the subordinate service. The necessity for improving the status of the Forest Guard is indeed urgent.

Of the Sub-Divisional Officers special mention should be made of Mr. Hemmadi's valuable assistance in connection with the Dandeli Railway Line and Mr. Shrigley's work in connection with despatch of war material from Kárwár. Of the Rangers Mr. Ghotgalkar in C. D. Kánara promises well. Messrs. Bramhe and Hasabnis in N. D. Kánara, Messrs. Anantbhat and Nerlekar in W. D. Kánara and Mr. Rege in Belgaum division are all deserving of mention.

Of the Office establishments who all worked satisfactorily the following Head Clerks worked especially well :—

Mr. Hosangadi in W. D. Kánara,

Mr. Koppikar in N. D. Kánara,

Mr. Saldanha in Belgaum.

A few men whose services were lent to Munitions in Bombay were reported as having done good work and Mr. J. P. Saldana a clerk who went on field service to Mesopotamia has lately been mentioned in despatches.

Sind Circle.

The charge of the circle was held by Mr. G. R. Duxbury from the beginning of the year to 20th December when he was compelled to proceed to Europe on combined leave on account of illness. Mr. H. L. Newman held charge in addition to his own duties from 21st December 1917 to 22nd January 1918, when he was relieved of the circle charge by Mr. D. A. Thomson, who remained in charge till the end of the year.

Messrs. H. L. Newman, A. C. Robinson, M. D. Jagtiani and D. J. Navani continued in their respective charges of Karáchi, Sukkur, Hyderabad and Working Plans throughout the year. Dr. Gustasp continued in charge of the Lárkána division till 22nd June 1918, when he proceeded on 10 days' casual leave and afterwards applied for privilege leave on medical certificate, Mr. Navani being placed in charge of the division in addition to his own duties. Mr. V. R. Mirchandani, Sub-Divisional Forest Officer, Sukkur, was appointed to the charge of the newly formed Shikárpur division from 1st August 1917 and remained in charge till the end of the year. All Divisional Forest Officers with one exception worked well throughout the year.

The proposals for the redistribution of the Sukkur and Lárkána divisions into three divisions, *viz.*, Sukkur, Shikárpur and Lárkána, were sanctioned by Government in their Order No. 9555 of 7th August 1917 ; the change took effect from 1st August 1917. The designation of the Jerruck Forest division was changed to the Káráchi Forest division in Government Order No. 212 of 3rd January 1918 ; the change in designation was desirable as the permanent head-quarters of the division are at Káráchi.

Eight additional rangers were sanctioned for the Sind Circle in Government Order No. 335 of 22nd January 1918, the grade of the highest paid ranger being increased from Rs. 125 to Rs. 150, thus bringing the circle into line with the other circles in the Presidency.

On the whole the standard of work improved throughout the circle. The following rangers are deserving of special mention :—Mr. Rodrigues in the Hyderabad division, Messrs. Bulchand Parumal and Gobindram J. Ramchandani in the Káráchi division and Mr. Nenumal in the Shikárpur division.

The Divisional office establishments worked well, but, as remarked last year, there is still much careless work which, it is hoped, the newly sanctioned system of departmental examination for clerks in the senior grade will eradicate, as better acquaintance with rules and regulations in force in the department will be secured thereby.

Under the zealous and efficient direction of Mr. Imdadali Mahomed Ashraf Kazi the members of the circle office worked satisfactorily. The four surveyors attached to the Working Plan office were distributed among the different divisions of the circle as the field and map work in connection with the revision of all existing working plans is now complete.

Two ranger class students from Dehra Dun both with higher standard certificates joined the circle and two new students were sent up for the 1918-20 course.

All the Divisional forest offices were inspected by the Deputy Conservator during the year and no serious irregularities were noticed.

The following casualties occurred ; these are arranged in accordance with the request of the Commissioner in Sind into superior service of Rs. 12 and over, and inferior service up to Rs. 10 :—

Division.	Numerical strength.	Deaths.	Casualties.			Punishments.				
			Retirements.	Resignations.	Percentage.	Dismissals.	Degradations.	Supersessions.	Fines.	Percentage.
Sukkur.										
Inferior	87	1	3	15	17.4	2	6	..	8	18.1
Superior	34	..	2	..		1	4	..	1	
Shikarpur.										
Inferior	47	1	1	5	13.1	..	3	..	4	9.8
Superior	24	..	..	1		..	..	..	..	
Larkana.										
Inferior	49	..	2	2	8.1	2	3	..	4	13.9
Superior	23	..	..	..		..	..	..	1	
Hyderabad.										
Inferior	58	3	2	10	17.6	1	5	..	4	14.1
Superior	27	..	..	..		..	2	..	1	
Karachi.										
Inferior	79	4	1	22	26.1	..	2	..	1	4.5
Suprior	32	..	1	1		..	2	..	..	
Total Inferior	320	9	9	54	12.4	5	19	..	21	12.4
Total Suprior	140	..	3	2		1	8	..	3	

The dismissals, degradations and fines inflicted on men in superior service were confined to guards in the Rs. 12 grade.

Punishments show a satisfactory decrease over former years, but resignations were higher than ever, these latter are due to low pay and high cost of living and the high rate of wages offered for labour outside forests. Measures to secure greater permanency of service among forest subordinates were the subject of correspondence between the Commissioner in Sind and the Deputy Conservator and it is understood from the Chief Conservator of Forests, Bombay Presidency, that proposals for improving the pay and prospects of the subordinate staff are now before Government.

General difficulty is being experienced in securing suitable candidates for junior clerkships in range offices; men who have passed the English School Final and Matriculation examinations refuse to accept such appointments as the prospects of promotion to the senior clerk's grade are so poor; unless the prospects of the junior clerks are improved, English-knowing men will not come forward; the demand for clerks in Karáchi both in business and on war work is very great and one junior clerk in the Sukkur division who resigned his appointment on Rs. 20 soon secured employment in a business firm on Rs. 50.

Relations between the Revenue and Forest officials have as usual been satisfactory.

CHAPTER VI.

GENERAL.

Northern Circle.

The *Collector of Panch Maháls* in forwarding the Divisional Forest Administration Report remarks:—

"Forwarded with compliments.

"2. Complaints against the department are a standing feature of my inspections of villages, especially in the Eastern Mahals. Villages which have not contributed to forests were badly off for grass and fire-wood because of the high prices and export of these from the district by contractors. It is easy to descant on the improvidence of the rayat in the Panch Mahals and to justify the exploitation by contractors of fire-wood and grass, but in my opinion it is the duty of the department to exercise foresight in providing for the needs of the primitive population by establishing grass and wood depots at which the villagers of non-forest villages can purchase grass and wood at low rates late in the fair season. Bad cultivation in the Eastern Maháls is partly due to the dearness of wood for agricultural implements.

"3. The heavy rain which came in October damaged grass to an extent which was not realised till January. The date fixed for compelling contractors to reserve grass for the needs of the district in case of scarcity, *viz.*, 1st November, it is in my opinion far too early. A shortage of grass cannot be gauged so early and touring officers have had no opportunity to form an opinion on the subject. The total revenue from grass and grazing is shown as merely Rs. 9,415-3-6. This amount must be a mere fraction of the profits made by grass contractors who have been selling at from Rs. 16 to 30 per 1,000 lbs.

The effect of the phenomenal prices was that there was absolutely no reserve of fodder throughout the district in July 1918, with results which might have been disastrous in the Eastern Maháls."

The fact that there is a special Indian organization busying itself with forest questions in Gujarát is sufficient reason that complaints against that department are a standing feature of the Collector's inspections. There are doubtless some temporary hardships owing to present high prices of fuel, but those in Godhra and Dohad are being met by special fuel depots. In the country the Conservator proposed giving the people the under six inch material from Government fellings for their own use, but the Collector considers that inadvisable and would apparently like the permit system continued and the depot system extended; but this is not as simple as it sounds. Permits are a cloak for fraud and inconsistent with organization. Depots are expensive and much trouble to run. It is hoped that the matter will be settled in the coming season.

With regard to grass the question is different. It would appear to be the duty of the Agricultural or Revenue Department to foresee district requirements, take

over the quantity of fodder required from the Forest Department and arrange distribution. It can hardly be regarded the duty of the Forest Department to bind its contractors to refrain from trade in the harvested crop till the Revenue Department needs are satisfied. With a little organized foresight it should not in the opinion of the Conservator be difficult for a fodder forecast to be made by the 1st November. If it is, the Revenue Department should take the burden. What is really wanted is the organization of all available fodder in the country by an expert. Then, as pointed out elsewhere, a year of rain shortage might be rendered almost as beneficial to the country at large as a bumper crop.

The Collector of Surat among other remarks says :—

> " Good progress is being made with roads in the Dangs and were it not for the river crossings, the Dangs would be already one of the best found parts of the District and the Agency."

That is as may be, but the Conservator considers that Ahwa should be approachable from Dhulia and Násik by good metalled roads fit for motors and these should be extended from Ahwa *via* Subir to Meshkhatri and direct to Waghai to join the Bulsar road ; also from Galkund to Waghai direct. A road from Subir to join the Navapur road is under construction. The fair weather roads made are fairly good, but require a lot of up-keep and will ever be impossible to motor transport owing to the dust, motor transport is what we must come to before long.

The Collector of Thana remarks with regard to gurcharans :—

> " The much vexed question of the Thána gurcharans, their exploitation and conservation forms the subject of a special annual report to Government. The Collector would only mention here that it seems to him that the time has come for revising the arrangements under which these 387 square miles growing some of the finest teak in the district are allowed to develop, stagnate or retrograde. Government have a skilled Department for the working of the forests and it seems necessary in order to prevent waste that this Department should be called in to supervise the sylviculture of these areas."

The Conservator entirely agrees and believes that the arrangement would be appreciated by the people, as they would be enabled to enjoy tahal privileges in forest while their tahal lands were being re-stocked and thus ultimately have a larger tahal and firewood supply.

Central Circle.

From the nature of its forests, the circle could take no great share in supplying timber to the Army, and only one division, West Khándesh, was called on to do so, in the form of 273 tons of jungle wood species. But in the same division grass operations on a very large scale were undertaken, the Army having asked help from Government in this respect. A special report has been submitted, and no details are here called for ; it will suffice to say that 10,000 tons, or 91,057 bales, were delivered between November and June. The work was done through the agency of Mr. Bhiladwala, and differed from ordinary grass operations in that the grass had to be baled at cotton presses in order to obtain the pressure required by the Army ; this necessitated it being first baled in hydraulic or hand presses at Nawápur and Chinchpáda, and then railed to cotton presses at Dondaicha, Nandurbar and Surat for repressing. Naturally the collection of this enormous quantity of grass, and supervision of the pressing and despatch work, monopolized not only the energies of the divisional staff for the whole season, but also all available labour and nearly every cart in the neighbourhood ; ordinary forest duties were perforce neglected, and coupe contractors found it impossible to complete their works within the season. The good work done by Mr. R. A. Shirali who was the Forest Officer in immediate charge of the operations, and of Mr. Alekar, the ranger in Nawápur, and of Messrs. Joshi and Burhanpurkar, the Mamlatdar and Mahalkari of Nandurbár and Nawápur, have since been recognized by Government. The whole cost of the operations was debitable to the Army.

Southern Circle.

The special features of the year were the construction of a forest railway in Kánara N. D. and extensive war supply operations in all divisions, by which

the outturn in timber was increased by 80 per cent., and construction of a Forest road up the Kalinadi valley to the Gund forests.

There were no serious epidemics to dislocate the work in the jungles, but the difficulties of procuring labour increased, particularly in the above-ghat forests of Kánara divisions. The extensive war supply works in the coast tálukas of Kánara, the construction of the Alnawar-Dandeli forest railway and the re-building of the level crossing over the Kali-nadi river at Bailpar in Kánara N. D. absorbed all the available labour, raising the rate of labour much above normal.

Owing to rumours that labourers were to be compulsorily recruited for the Army many hesitated to leave their homes for above-ghat works. Later on, to counteract these mischievous rumours, recruiting was closed in the above-ghat tálukas of Yellápur and Haliyál and Mundgod and Supa pethas and confidence was restored. In Belgaum too the same difficulties of labour had to be faced. The Goanese feared compulsory recruitment.

The Berad (Criminal tribes) settlement in Khánápur táluka, Belgaum, now comprising about 65 families, worked satisfactorily cutting about 2,545 tons of running fuel for delivery to the S. M. Railway.

The construction of the railway line 19½ miles between Alnavar station on the M. and S. M. Railway and Dandeli in Kánara, N. D., was begun in December 1917 and almost finished by the end of June 1918. The line was cleared of tree-growth by the Forest Department through contractors, the material cut on the line being converted into sleepers and fuel for the use of the line *in situ*. The earth-work and construction was done by the M. and S. M. Railway Company through their contractors. The line was frequently visited by the Conservator, S. C., and the Commissioner, S. D., to issue instructions and expedite work. Here again the Railway contractors experienced difficulty and disappointment in labour supply and Turkish prisoners of war—about 700 from the Bellary camp—were procured to assist in the completion of heavy blasting work. Unfortunately they were removed by the Military authorities prematurely. Cost of the work during the year was Rs. 2,75,444.

A survey for the extension of the Alnawar-Dandeli railway line through forests to Bhagwati, distance 12 miles, has also been sanctioned by Government shortly after the close of the year.

The question of further extending the line from Bhagwati in Kánara N. D. to Kirwatti and thence *via* Gunjawati to Katur through the best forests of Kánara E. D. is under discussion.

The survey for a railway from Hubli station on the M. and S. M. Railway to Sirsi *via* Kalghatgi and Mundgod was carried out by an Engineer of the M. and S. M. Railway Company. Further developments are awaited.

The second important work in forest communications during the year namely, the Kadra-Holegadda ghat road along the north bank of the Kalinadi river in Kánara W. D. was almost completed. This road will facilitate the extraction and transport of all valuable jungle wood timbers, which being not floatable like teak have been left lying in the jungles for years past.

The crossing over the Kalinadi at Bailpar in Kánara N. D. being always in an unsatisfactory state and under constant repair, was reconstructed and raised 2 feet. The work was carried out very expeditiously by the Public Works Department commencing in April; the work was practically completed in June.

A special Engineer, Mr. T. S. Pipe, was temporarily deputed by Government during the year on forest road and building works in the circle. His surveys and professional advice will greatly improve forest communications.

His Excellency the Governor of Bombay visited Yellápur in Kánara E. D. in November and stayed there for 3 days. A visit was paid to the Nersol slope forests where the forest contractor's elephants were working at the slide. In spite of the heavy rains His Excellency saw a good deal of the jungles, enquired closely into their working, and seemed greatly impressed with the necessity of communication by road and rail.

The question of handing over isolated patches of cultivated land surrounded by forest to the management of the Forest Department was also discussed at a

meeting at which His Excellency the Governor, the Commissioner, S. D., the Collector of Kánara and the Conservator of Forests, S. C., were present.

War supply works received the primary attention of the Department even to the neglect of the usual works to some extent. About the end of 1917 monsoon large indents—all most urgent—were made by the Indian Munitions Board. This work was undertaken on the Kánara coast on a larger scale than elsewhere. When the contracts for poles were in full swing, the Munitions Board said that the sizes of poles which they had asked to be cut was wrong and changed the dimensions. This upset the majority of this class of work already done and changes had to be made. Nevertheless, poles came in in several thousands per month. In addition to pole work, large indents for fuel, bamboos of various kinds including solid bamboos for lance staves and tent poles were supplied. By the end of March war supply depots on the coast were congested, removal being delayed owing to the difficulty in obtaining boats. Late in the season the Munitions Board arranged to transport the timber by special steamers and country craft. There is much material to be removed yet. The details of material supplied are given in Chapter II.

By the kind invitation of Mr. H. Tireman, the Divisional Forest Officers, Kánara Eastern and Western divisions, in company with the Chief Conservator of Forests, Bombay, paid a visit to the Coorg Forests with the object of studying the pit method of capturing wild elephants. A close study was also made in Coorg Forests of the methods of eradicating *lantana* successfully employed there, and the operations for regeneration of Teak, etc., by extensive clearing, burning and sowing.

The forests of the Ratnágiri division, worked at a loss of about Rs. 3,000 every year, were, after prolonged enquires, handed over to the Revenue Department for management with effect from 1st July 1918.

The Collectors of the different districts make the following remarks in forwarding the divisional reports :—

Kanara, N. D.—(by Mr. J. H. E. Tupper) :—" Mr. Dodgson's administration has been most successful and is always marked by all possible considertion for the real needs of the people.

Mr. Dodgson has found the policy of in-forest cultivation as difficult to execute as Mr. Marjoribanks. The Collector's remarks made in forwarding the report of the latter officer apply equally to the Northern division.

The Collector endorses the views expressed in paragraph 71*. This matter also has been dealt with in forwarding the report of the Divisional Forest Officer, W. D. Kánara.

Dhárwár (Mr. E. G. Turner) :—The report calls for no comment so far as it refers to the portion of the division in this district.

Kanara, E. D.—(Mr. J. H. E. Tupper):—" The Collector in forwarding the reports for N. D. and W. D., has already identified himself with the views expressed by Mr. Edie with regard to the improvement of pay and status of the subordinate grades.

The Collector would also associate himself with Mr. Edie's views of railway extension, particularly with regard to the projected Hubli-Sirsi line. The Collector agrees with Mr. Edie that purely forest lines will not pay. A single reason is enough. The traffic on a purely forest line all runs one way.

Mr. Edie is a considerate, capable and experienced administrator who knows his charge very thoroughly. The note of pessimism which pervades the report is therefore the more significant. Partly it may be due to the fact that Mr. Edie has worked longer and harder without rest than any man ought to do in this climate, but the present state of Yellápur and Mundgod is enough to make any one pessimistic. Deterioration is 'writ large' over the country side, in the broken bands, silted tanks, deserted villages and general air of neglect, to which

*." The subordinate staff is much undermanned, there being 22 vacancies, which is 12½ per cent. of the establishment. The pay is totally inadequate. Coolies receive Rs. 15 a month, whereas the Forest Guard's pay is only Rs. 8 or 9 a month. With food-stuffs at present prices it is impossible for a man to live on this pay. Added to this small pay there is the unhealthiness and loneliness of the locality where they are stationed to be taken into consideration. All this tends to make recruitment most difficult.

Mr. Edie calls attention. Mr. Edie would attribute this more to the fault of the people than to increasing pressure of forest, and he indulges in a comprehensive indictment of the entire agricultural population, landlords and tenants alike. It is true that no one, landlord or tenant, will put money into land. But to do so under existing conditions would be to throw good money after bad .. The simple fact is that agriculture under existing conditions has ceased to pay. It used to pay and to pay well, as the history of the last 4 centuries proves beyond question. All that is required to make it pay again is an alteration of forest policy which will be as beneficial to forests as to agriculture."

Dhárwár—(Mr. E. G. Turner) :—" There appears to be nothing in the report which calls for special comment as far as it relates to the portion of the division in this district ".

Kanara, C. D.—(Mr. J. H. E. Tupper) :—" The Divisional Forest Officer has had a strenuous time in keeping pace with the varying requirements of the Munitions Board."

" The decrease in the number of offence-cases is probably due to some extent to the District Magistrate's circular which has stopped the use of Courts as brokers. Orders to levy compensation or to prosecute are however still passed without sufficient verification of the facts reported, and in a considerable number of cases it has been necessary to call on the Divisional Forest Officer to justify orders which *prima facie* lack justification."

" The betta fines [paragraph 3 (*a*)] were alluded to in the Collector's remarks on last year's report. They were a mistake from the beginning. In the absence of legal proof of substantial damage they cannot be collected as arrears of Land Revenue. Generally the only damage alleged is the burning of grass, of nominal value, which is the property of the betta-holder himself."

" The large increase in the number of villages allowed free grazing is a very satisfactory feature, and there are many other indications in the report that Draconian methods, which have led to much friction, are being modified with advantage to all concerned."

Kanara, S. D.—(Mr. J. H. E. Tupper) :—" From the point of view of general administration, as distinct from that of professional forestry about which the undersigned has nothing to say, the year's work in the Southern division shows signs of improvement. There is however a large amount of lee-way to make up. Complaints are still general of petty and unnecessary harassment and of absence of facilities essential to agriculture. To some extent the decline of agriculture and of agricultural population, conditions which cannot fail to produce general complaint, are no doubt due to the increasing pressure of forests upon agriculture caused by improved conservancy combined with over-afforestation."

" For this the Divisional Forest Officer is not responsible ; but these conditions are common to the district as a whole, and the greater prevalence of complaint in the Southern division (which is equalled only in the Central division) must have some cause other than original sin inherent in the population. Inspection of magisterial records suggested that prosecution (not infrequently followed by conviction) is freely resorted to without adequate verification of the facts reported by subordinates. In a large number of cases the Divisional Forest Officer has been asked to justify his order, where it is *prima facie* without justification. Personal inspection also showed that rights guaranteed to agriculturists under the privilege rules, Forest Settlements and Working Plans were in many cases not enjoyed by the people. The Divisional Forest Officer's attention has been called to such cases as came to light, and his report is awaited. Many of these cases are of long standing, considerably ante-dating the tenure of office of the present incumbent."

Kanara, W. D.—(Mr. J. H. E. Tupper) :—" Mr. Marjoribanks' Revenue Administration of his large charge continued admirable.

Enforcement of communal responsibility for the preservation of minor forest opened to privileges by compelling the cutting back of stumps left high was continued on a gradually extending scale, and over 26,000 stumps were cut back in 15 villages. Other divisions are now beginning to adopt the same method,

but operations in this respect will have to be conducted with caution this year owing to distress caused by high prices and the bad season."

"In the undersigned's opinion Mr. Marjoribanks' observations on the bad effects of the existing low scale of pay on guards and foresters are very much to the point. The guard does not get a living wage, and consequently must supplement his income from other sources. The forester's pay is inadequate to his work and position. An increase of pay is very necessary in the interests of good administration.

The re-distribution of bettas will be taken up when war work gives the Divisional Forest Officer time to attend to such matters.

Mr. Marjoribanks' observations on in-forest cultivation are interesting and in the Collector's opinion right in the main.

There is obvious loss of power and premature expenditure of capital involved in breaking new land in forest, or reclaiming long abandoned and overgrown arable, before the progressive increase of fallows is checked and the process of bringing them again under the plough is well advanced. The net cropped area for the Supa mahál (gross area 402,754 acres) for 1917-18 was under 10,000 acres and the fallows had increased to over 7,500 acres. It will be easier and cheaper and will yield a better return to work for the restoration of the 7,500 acres (or part of them) to the plough, before undertaking the up-hill struggle which Mr. Marjoribanks describes and which, despite his utmost efforts, has resulted only in giving out 140 acres. The way to bring fallows back to cultivation is the free grant of all possible kumki facilities from the nearest forest combined with a reduction of assessment on rice land. It is little use pumping water into a tank at great trouble and expense unless the leak is first stopped. At present the leak continues. Cropped area and population in the mahál steadily decrease. If this process is to be reversed it will be necessary to let the cultivator have his own way with a certain amount of forest in the neighbourhood of cultivation and habitation. It is obvious from the Divisional Forest Officer's remarks that forest has gained a mastery that the cultivator is powerless to contend with under the existing restrictions imposed by conservancy."

Belgaum.—(Mr. E. L. Sale) :—"We are still a long way from solution of the question how to prevent forest fires. Mr. Hodgson opposes the grant of concession in the way of reduction of grazing fees to the villagers who turn out to help to extinguish fires because he believes that the very men who fire the forest also often turn out to help to put them out in order to avoid drawing suspicion on themselves. The Collector presumes however that Mr. Hodgson thinks that the other men who have had nothing to do with the origin of the fire and who work hard to put it out should be rewarded in some way. Reduction of grazing fee is an easy way of rewarding them and therefore has been adopted. If Mr. Hodgson can devise some other means of encouraging the ordinary villager to turn out at the fire alarm and do his best to put out the fire, the Collector will be very glad to consider the adoption of his suggestion. It is not enough to punish villagers who do not turn out. Good work should be rewarded if neglect is punished.

The large number of impoundings in the Gokak range is probably due to the fact that a large area of forest was transferred from the management of the Revenue Department to the Forest Department in the year. Areas which had for many years been open to grazing were closed by the Forest Department whose rules were unknown to the villagers.

In the Gokak, Murgod and Parasgad forests some allotment of area should be made for grazing by sheep and goats. Hitherto large flocks of these animals have been maintained in some of the villages and their exclusion from forests is considered a great harship."

"Much of the area now transferred to forest is rocky land incapable of producing timber of any value. In the Collector's opinion some portion of such areas could with advantage be opened to grazing by sheep and goats.

Possibly some arrangement might be made under which such grazing should be allowed on condition of the clearance of a certain area from prickly pear and Lantana.

The encouragement of the production of charcoal in the forest is recommended. The demand for charcoal in Belgaum is usually in excess of the local supply although the forests are so near.

Additional expenditure by the Forest Department on the improvement of forest roads opening access by cart from railway stations and main roads to the vicinity of the forest cuttings is strongly advocated. The District Local Board has in the past given such pecuniary assistance as its funds permit for the improvement of communication roads. They cannot be expected to make grants in sparsely populated areas when there are loud demands for improved roads in the more open and populous parts of the district. The money spent by the Forest Department on the improvement of link roads to areas carrying good forest is certain to result in additional revenue far exceeding such expenditure."

Dharwar-Bijapur division.—Collector of Dharwar (Mr. E. G. Turner) :—" The report leaves little scope for comment. The statistics are more or less the same as last year and the results on the whole appear quite satisfactory. This is the first occasion on which it has been possible to compare the financial results of this division as now formed with the previous year and it is gratifying to note an increased surplus of over Rs. 2,000. The marked feature of the year has been the handing over of a large area of revenue pasture to the control of the Forest Department. The scheme was very carefully considered with due regard both to the needs of tree protection and the requirements of the villagers. It is apparently giving satisfaction to the ryots as no complaints have so far been made. It is also gratifying to note that the Inamdars of this district have responded to the request made to them for co-operating in the work of fire-tracing."

Collector of Bijapur (Mr. J. K. Kabraji) :—" Every assistance is being given to the Forest establishment in enlisting the co-operation of villagers and Inamdars in clearing demarcation lines and in fire tracing boundary lines. The Collector would recommend more liberality in rewarding those villagers who help in these important matters.

The forests of this district being mostly devoid of valuable timber, the continuance of a large number of " unauthorised fellings " need not cause serious anxiety, but rather indicates the desirability of taking steps by liberality in the matter of small branch-wood and by reserving fuel for local supply whenever required, to reduce the temptation to illicit fellings. The forest establishment would then have more time for their legitimate business. Some proposals in this direction have lately been under consideration.

In two cases grazing fees were doubled by way of punishment, but in not a single case were they remitted or even reduced. In view of the remarks in paragraph 5, sub-paragraph 2 of Government Resolution No. 6309, dated 7th June 1918, Revenue Department, more liberality in rewarding villagers who assist the Forest Department is to be desired. The Collector is also prepared to reward village officers whose work in helping the Forest Department is brought to his notice, but the grant for such rewards is small, and it is desirable there should be an allotment in the Forest Department budget itself for such rewards.

During the year several pasture forests in the Bagewadi, Hungund and Bagalkot talukas were handed over to the Forest Department after personal discussion with Mr. Koppikar and it is hoped this will lead to their being better conserved than hitherto. Similar proposals in the Badami taluka are pending consideration which cannot be concluded until sufficient provision for sheep-grazing has been made in some villages where it is necessarily required, by releasing parts of the pasture forests absorbed some years ago into forests proper.

Mr. Koppikar's administration of the joint division has been marked by financial improvement as also more harmonious and sympathetic relations between the Forest establishment and the villagers."

Sind Circle.

The Inspector General of Forests visited the circle and made a tour of about 3 weeks in December 1917 in the important forests of the Larkana, Hyderabad and Karachi divisions to advise on matters connected with forest administration ; he was accompanied on the tour by the Deputy Conservator and by Major Duxbury, Inspecting Officer, Supply and Transport, Southern Army, who had

been deputed by the Quarter Master General in India to investigate the fuel resources of Sind as a source of military fuel supply.

The original intention of the Military Department seems to have been that Sind should contribute about 12,000 tons of fuel per mensem for supply to overseas expeditionary forces; the matter was discussed fully by Mr. Parkar, Deputy Conservator of Forests, Punjab, on special duty in this connection and Mr. Newman then in charge of the circle; it was decided finally that not more than 9,150 tons a month could be made available for the purpose after the requirements of the Province had been provided for. Contracts were then arranged with 5 forest contractors in the circle for a total supply of 1,09,800 tons of fuel in the 12 month period from 15th February 1918 to 14th February 1919; in addition to the above a further contract was entered into by the Assistant Director, Supply and Transport Embarkation, for 9,000 tons. All the above comes from the forests of lower and middle Sind, while the Assistant Director of Supply and Transport, 4th Quetta division, contracted for the supply of 11,000 tons of fuel from the divisions in upper Sind for supply of fuel to troops in the Quetta divisional area.

At the beginning of the year and until departmental action was taken, high prices prevailed for fuel all over the Province; the principal causes were the large export of fuel to Mesopotamia and to Quetta and the neighbourhood; the situation was further aggravated by profiteering on the part of contractors and retailers, the latter marking up prices in a fantastic manner in many cases. The Deputy Conservator after consultation with the Collectors of Hyderabad and Karachi prevailed on Mr. Desa, one of the largest forest contractors in Sind, to open depôts on sites given to him in each city and to sell dry split babul at the rate of annas 12 and annas 14 per maund in Hyderabad and Karachi respectively; Mr. Desa has abided loyally by this arrangement which has had a great effect in keeping down prices in these two cities; he has also given satisfaction by the way he has kept up supplies of dry fuel for sale in his depôts despite difficulties of securing railway transport. This arrangement as far as Karachi is concerned was subsequently confirmed at a meeting held on the 24th of May 1918 by the Deputy Conservator, the Divisional Forest Officer, Karachi, and the Deputy Controller of Prices for Sind with the contractors and many of the retail sellers in Karachi; after full discussion and consideration it was agreed that contractors should sell at the 14 anna rate for dried split babul but that the retailers should sell at annas 15 per maund to make up for the increased cost of splitting the billets into fuel.

As there was much outcry in the local press about the high prices prevailing in Sukkur and Rohri, the Commissioner in Sind requested the Deputy Conservator to meet him at Sukkur where measures to reduce the prices in the towns in Upper Sind were discussed. To meet the emergency in Sukkur and Rohri the coupes prescribed for 1918-19 in the Sukkur and Rohri ranges were sold on the condition that the contractor opened 7 depôts in these towns for retail sale at fixed rates, the arrangement to continue till July 1919. The approved rates are annas 8 and annas 6 per maund for kandi and lai respectively. The depôts were opened on 20th March 1918 as the contractor agreed to supply dry wood out of his own stock to begin with and then to utilize the wood of the coupes when dry and fit for consumption. The depôts have worked successfully since their initiation and the average weekly sales to the end of the year work out at 872 maunds of kandi and 1,242 maunds of lai firewood. The Deputy Conservator then went to Shikarpur and met the President of the Municipality, the Chief Officer and a leading influential citizen, *viz.*, Mr. Murlidhar J. Punjabi, in connection with the high rates prevailing there. Steps were taken through a forest contractor to supply the Municipality with 45,000 maunds of dry fuel for retail sale, the rates agreed on being annas 8 and annas 6 per maund for kandi and lai respectively F. O. R. Shikarpur and since that arrangement was made the coupes of the Shikarpur range have been ear-marked for local supply at the above rates. The Deputy Conservator was able to prevail on one of the contractors of the Larkana division to sell retail at the rate of annas 8 and annas 6 per maund for kandi and lai in Larkana town, provided he was given two depôt sites free of rent; the sites were arranged for at once by the Collector and the arrangement is now working satisfactorily.

One interesting feature was the policy of self-help adopted by the Panchayat of Manjhad ; they were given an erosion strip in the Butho forest which they worked themselves, selling the whole outturn of the strip to the townspeople at a fixed rate of annas 8 per maund after paying Government a royalty of annas 2 per maund of fuel extracted. Since all the measures outlined above were taken the outcry in the press has died down completely ; thanks to the recent advent of control of prices and civil supplies the fuel market rates in large towns can now be kept within reasonable bounds.

Chil and deodar logs and sleepers and logs of tali (*Dalbergia sissoo*) were as usual imported into Sukkur, Rohri and Shikarpur from the various parts of the Punjab and large quantities of fuel to Sukkur and Rohri and elsewhere from the territories of H. H. the Mir of Khairpur.

Arrangements were made to give instructions in arboriculture to subordinates of the Public Works Department, District Local Boards and Municipalities at Miani in Hyderabad ; 13 candidates who sat at the final examination were successful in passing the test.

REMARKS OF THE COMMISSIONER, NORTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE NORTHERN CIRCLE FOR THE YEAR 1917-1918.

No. F. O. R.—47.

REVENUE DEPARTMENT.

Camp Dohad, 14th December 1918.

Submitted to Government.

The Commissioner has no special comments to make on the report. The financial results of the year's working judged from the surplus of receipts over expenditure were satisfactory.

The Collector of the Panch Mahals and the Conservator have both made some remarks about the grass and fuel supply. As regards grass nothing seems more certain than that the whole question must be thoroughly overhauled after this season's scarcity with a view to the proper organization of reserve stocks to meet emergencies. The Conservator states that high fuel prices are being met Godhra and Dohad by special fuel depôts. Writing here at Dohad on December 14th, 1918, I find no fuel depôt in existence and there seems to be some misapprehension which will be looked into. The Commissioner hopes to have an opportunity of discussing the question of the fuel supply with the Conservator and the Collector during the present season.

Mr. Fisher and the officers under him deserve credit for the efficiency with which the department was administered under adverse conditions.

F. PRATT,
Commissioner, Northern Division.

REMARKS OF THE COMMISSIONER, CENTRAL DIVISION, ON THE FOREST ADMINISTRATION REPORTS OF THE NORTHERN AND CENTRAL CIRCLES FOR THE YEAR 1917-1918 SO FAR AS THE AREAS IN THE CENTRAL DIVISION ARE CONCERNED.

No. B—1569 OF 1918.

Poona, 19th December 1918.

The following review of the administration reports of the Northern and Central Forest Circles for the year 1917-1918, in so far as the areas in the Central Division are concerned, is submitted to Government in the Revenue Department.

There was a net decrease of about $2\frac{2}{3}$ square miles in the forest area, due to ordinary disforestment; the total forest area in the Central Circle was $5{,}397\frac{3}{4}$ square miles—3,731 square miles in charge of the Forest Department and $1{,}666\frac{3}{4}$ square miles under the Revenue Department.

Of the 124 miles of new boundary to be demarcated in the Rajur range of the Poona division, 108 miles were finished at the cost of Rs. 852.

The combined working plan for the Satpura forests has been completed on the lines recommended by the Inspector General of Forests.

Extension of the existing roads in South Nasik and North Khandesh was taken up and a portion of the Lonavla Bhimashankar bridle path in Poona was converted into a cart track. The Conservator of Forests, Central Circle, remarks: "There is no great scope for road extension in the circle, excepting in the North and East Khandesh divisions and even here the quality of the forests is not such as to justify work on an elaborate and costly scale."

As regards the proposed Dhadgaon dispensary, the Commissioner may observe that the Surgeon General is providing a grant-in-aid. The objections put forward last year seem still to have some force, but the Commissioner is not disposed to press them now that money appears to be available.

A statement showing the nature and number of forest offences committed is appended. Their number rose from 7,274 to 7,856, of which 222 were taken

into court; 6,873 were compounded and warnings were given and 761 remained undetected. Nasik sub-division shows the largest increase (of 332 cases) probably due to greater attention paid to these matters since the creation of the sub-division as an independent charge,

The number of fires was 383 against 521; and a considerably smaller area was burnt—$1\frac{1}{10}$ lakh acres against 2 lakhs acres. The Commissioner ascribes the improvement, at least partially, to the unusual rainfall in April and May. Considering the enormous and obvious damage done to forests by fires it should surely be possible to convince Indore of the advisability of paying more attention to fire prevention and of co-operating more effectively with British territory.

The number of cattle impounded rose from 68,016 to 83,602 as shown in the margin. The increase is shared more or less by all divisions except Poona and North and South Nasik. The marked increase in West Khandesh is said to have been due to the absence of rain in the earlier part of the monsoon and consequent persistent trespass in closures; although the situation was relieved by the Anjan concession and by throwing open grazing. Increased vigilance caused a rise in impoundings in the Nasik sub-division.

	1916-17.	1917-18.
East Khandesh ..	11,289	12,434
West Khandesh ..	10,602	18,278
North Khandesh ..	6,027	7,021
Poona ..	10,136	8,357
Satara ..	5,033	9,230
North Nasik ..	11,419	9,341
South Nasik ..	4,971	49,86
Nasik sub-division ..	8,539	14 255
	68,016	83,602

The financial results of the year are satisfactory. The revenue of the forest divisions in the Central Division amounted to Rs. 8,34,896 against Rs. 7,16,800. The increase in revenue is mainly contributed by the West Khandesh and East Khandesh divisions on account of improved receipts from grass and grazing and from the supply of timber to the Army Department.

Revenue and expenditure in the Nasik ranges were Rs. 2,64,196 and Rs. 1,05,733 respectively.

The relations of revenue and Forest Officers have continued to be most cordial. All superior officers have worked well. If the subordinate staff has not been satisfactory it must be that remuneration and prospects are not sufficiently attractive.

C. N. SEDDON,
Commissioner, Central Division.

Number of Forest Offences committed in the C. D.

Divisions.	A. Cases taken into Court.				B. Cases compounded and warned.				C. Cases undetected.				Total.				Grand total, 1917-18.
	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling or appropriation of wood and other minor forest produce.	Grazing without permission.	Other offences.	
East Khandesh.	2	11	8	12	1	267	360	168	24	114	1	4	27	392	369	184	972
West Khandesh	..	4	12	3	53	413	483	36	23	53	4	1	76	470	499	40	1,085
North Khandesh ..	1	7	9	4	7	175	183	59	39	91	3	1	47	273	195	64	579
Poona ..	1	20	21	4	29	646	848	151	69	120	7	1	99	786	876	156	1,917
Satara ..	2	18	27	14	25	423	679	143	22	42	2	6	49	483	708	163	1,403
North Nasik ..	..	3	1	1	..	236	246	25	8	37	..	..	8	276	247	26	557
South Nasik ..	..	2	6	1	3	158	123	20	19	30	..	1	22	190	129	22	363
Nasik Subdivision ..	..	21	6	1	1	442	444	26	3	35	..	1	4	498	450	28	980
Total ..	6	86	90	40	119	2,760	3,366	628	207	522	17	15	332	3,368	3,473	683	7,856

REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE FOR 1917-1918.

No. 4961.

REVENUE DEPARTMENT.

Belgaum, 23rd October 1918.

Alteration in area.—Pasture forests in Dharwar and Bijapur of the aggregate area of 54 square miles have been transferred to the Forest Department for management.

Ratnagiri forests (18 square miles) have been transferred to the Revenue Department.

Working plans.—Of the total forest area, a little more than $\frac{1}{3}$rd is under working plans and less than $\frac{1}{4}$th is considered as area for which plans are required; the rest comprising 2,014 square miles is taken as area for which working plans are not required at present. Of the area for which working plans are required, plans are under preparation for 798 square miles and 207 square miles are yet to be taken up. Work is at a standstill owing to shortage of officers.

Arrears in the exploitation of forests according to working plans are due to lack of transport and labour.

Dandeli-Alnavar railway (distance 19 miles) has been constructed and will shortly be opened. Extension of the line 12 miles south-east to Bhagwati is about to be taken up and further extension of the line into the heart of heavy forest is under consideration.

Forest roads are being attended to where required. More than thrice the amount of last year, *viz.* Rs. 57,000 against Rs. 18,000, were spent on the construction of 27 miles of new roads.

Thus it is hoped that transport difficulties will gradually be minimised.

Difficulty of getting labourers continues. At present the area where intensive working is required has to depend on imported labour which is not quite satisfactory. Unless there is a resident population which the Forest Department can control, the labour question cannot be considered satisfactory. Government have at my instance sanctioned liberal concessions for the encouragement of in-forest cultivation and I have asked the Forest Department to put up proposals for the afforestation and subsequent disposal on very easy terms for in-forest cultivation of waste lands in the midst of forest which are suitable for cultivation. As the climate of the country we are dealing with is very unhealthy and the existing population which has been heavily reduced by plague in the past is already small and is decreasing gradually, there is not likely to be any great increase in population through the scheme for the re-population of deserted villages and villages in the midst of heavy jungles. I have therefore also arranged that where forest suitable for cultivation adjoins village sites and cultivated lands in the more open parts of the country, lying along the Belgaum-Dharwar railway line on the Kanara frontier, *e.g.*, at Haliyal and Nagargali, such forest should be disforested and given out by the Revenue Department on favourable terms. There is far more likelihood of increasing the population if we take established towns and villages on or near the outskirts of the forest and provide for an extension of cultivation. Such localities are less unhealthy, provide more amenities and provide a more suitable basis to work upon. It has further been arranged that where necessary forest labour is given by local cultivators, they should be rewarded by partial remission of assessment as an incentive to others to take up cultivation in the locality and also to assist the Forest Department. There can be no royal road to stem depopulation that has continued for over a generation in the unhealthy conditions of the Kanara forests. Various checks, palliatives and encouragements must be applied according to circumstances. I hope that by these different ways population may eventually be increased but the process must be slow and requires constant care and

sympathetic treatment on the part of the local officers. These operations were set on foot in 1917 and up to now the results attained are as follows :—

(*a*) In Western Division Kanara 103 acres of forest in Jagalbet 10 miles from the Londa railway station have been given to 11 families imported from Chandgad (Belgaum).

(*b*) Sixty-four acres of land were given out at reduced rates in which ragi and rice were cultivated.

(*c*) In Northern Division Kanara three families were settled at Vincholli in 1917 and this settlement has since been increased by two houses. There are now six forest mahals extending over an area of 1,004 square miles in three forest divisions in Kanara and the Divisional Forest Officers of these mahals have as ex-officio Assistant Collectors ample scope to look more closely into the circumstances of the rayats in this area.

A settlement of Berads has been established in Khanapur under the control of the Criminal Tribes Settlement Officer. It contains 271 inhabitants of whom 150 are engaged on forest work.

Question of formation of Labour Corps for exploitation of forests in Khanapur is under my consideration.

Miscellaneous work.—The project submitted by Mr. Pipe for the improvement of waterways of the Kaneri and the Kalinadi in accordance with Government Order No. 10939 of 14th November 1916 is estimated to cost Rs. 6,34,893. Mr. Bell considers that the project should not be carried out as the cost is far in excess of the original idea. I agree with him that these river projects are too expensive and their success too problematical to justify execution. I have therefore recommended the proposal of the Chief Conservator that a small sum of Rs. 2,000 be alloted annually to the Divisional Forest Officer for blasting purposes and also that a road be constructed from the mouth of the Kaneri up as far as possible and be connected with the Kadra-Shivapur-Holegadde road under construction. (My No. 2886 of 3rd July 1918).

Protection of forests from fire.—In spite of the short duration of the fire season owing to the late November and the early May rains, the area burnt increased from 83 to 182 square miles, increase being mostly due to intentional fires. Villages punished by enhancement of grazing fees decreased from 304 to 170 while villages rewarded increased from 205 to 404.

The Conservator considers that since section 78 of the Forest Act has been amended so as to make non-assistance for extinguishing or preventing forest fire penal there is no reason to offer rewards to helpers. I do not share the Conservator's views. Fear of punishment for omission to do a duty imposed by law will not appeal to people as strongly as the hope of reward. I am therefore asking the Conservator to see that the policy approved under paragraph 5 of Government Resolution No. 6309 of 7th June 1918 is strictly followed and I also have proposed to the Chief Conservator that those who helped should be given a certificate to that effect as soon as possible. As it is, they receive no intimation. This will enable any who have helped, and whose names have been omitted, to apply to have the error adjusted. My suggestion is based upon a representation from a certain village and shows the value the people attach to prompt recognition.

Protection from cattle.—Impoundings rose to 13,562 from 11,752 but are well within the average of past three years (14,326). Nearly ⅓rd of impoundings occurred in Belgaum which shows some improvement over the state of affairs which existed four years ago when nearly 6,400 impoundings occurred there. I still consider the number of impoundings is large. Recently some revenue lands have been handed over to the Forest Department and I have asked for a report as I desire to see whether many impoundings have occurred in these lands. Leniency is very necessary when lands where cattle have been allowed to graze freely are suddenly brought under the Forest Department.

Impoundings number 4,595 in Dharwar. The Conservator remarks that in both divisions the increase is partly ascribed to the increase in area of the forest in charge of the Forest Department and partly to more accurate reporting of

offences by subordinates. As regards the first reason no land is allowed to be afforested until the Commissioner is satisfied that ample grazing facilities exist. One of the causes for the numerous impoundings is apparently the entire closure of forests to goats and sheep and the question will be investigated.

Cultural operations.—Taungya plantation on the Burma method referred to by Mr. Copleston was tried in 1910 in the Honavar taluka where people were given land to grow ragi crop on condition that they planted *teak* seedlings over the area. It is not known whether that method has been continued.

Exploitation.—Casuarina in Kanara fetched Rs. 383 per acre against Rs. 147: babul in Bijapur Rs.131 against Rs. 72: and timber and fuel Rs. 149 against Rs. 68 in Belgaum.

Sandalwood rose from Rs. 422 to Rs. 440 per khandi or 560 lb. (first class wood).

Even after reserving the best timber for munitions, the prices obtained in public auction at the Tavarkatti and Kirwatti depôts ranged from 25 to 60 per cent. higher than those of last year.

All these show that the value of the forest estate is increasing and even with the end of the war there will be a very heavy demand for timber, which will keep up prices for many years to come.

Financial.—The high figures of expenditure includes a capital cost of Rs. 3,11,022 on Alnavar-Dandeli railway and the purchase of three saw-mills and Rs. 3,15,269 cost of departmental exploitation of materials for war purposes.

The figures of income do not include outstandings of 11½ lakhs of rupees on account of revenue due from the Munitions Board and others.

This explains the apparent variations in revenue and expenditure.

General.—The Conservator having reported that collection of statistics regarding sandalwood trees should be held over for the present owing to the time of forest officers being taken up with more pressing war work, the question of legislation for the control of sandalwood trees is for the present held in abeyance.

Owing to the efforts of the Divisional Forest Officer and ex-officio Assistant Collector following the line of policy laid down in 1915 the Kunbi Marathas of Belgaum are gradually leaving their hangami kumri area and accepting the offer of suitable lands on easy terms. The hangami kumri measures 7,513 acres and they will be afforested.

The purchase of plant for drywood distillation has been deferred till after the war, not only on account of the difficulty of obtaining such plant, but also because all forest officers have their time fully occupied with war work.

L. J. MOUNTFORD,
Commissioner, Southern Division.

REMARKS OF THE COMMISSIONER, SOUTHERN DIVISION, ON THE FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE FOR THE YEAR 1917-18 SO FAR AS THE AREAS IN THE SOUTHERN DIVISION ARE CONCERNED.

No. 5183.

REVENUE DEPARTMENT.

Belgaum, 6th November 1918.

Forests in three places in the Dhapoli taluka of the Ratnagiri district have been transferred to the charge of the Divisional Forest Officer, Kolaba—*vide* Government Order, Revenue Department, No. 5205 of 30th April 1918.

2. In course of inspection of the fuel depôt at Matheran the Commissioner found that coolies were not paid at the time of weighment of wood brought in from compartments. A special report was therefore called from the Collector and as a result the defects discovered have been removed and the Ranger has been transferred.

L. J. MOUNTFORD,
Commissioner, Southern Division.

REMARKS OF THE COMMISSIONER IN SIND ON THE FOREST ADMINISTRATION REPORT OF THE SIND CIRCLE FOR THE YEAR 1917-18.

No. Rev. 1396 of 1918.

Revenue Department.

Office of the Commissioner in Sind.
Government House, Karachi,
2nd December 1918.

Submitted to Government.

The revenue of the year amounted to Rs. 7·3 lakhs against an average of Rs. 4·2 in the last 5 years, and the expenditure to Rs. 2·3 lakhs against an average of Rs. 2·2. The surplus revenue as compared with the previous year rose from Rs. 3·2 lakhs to 5 lakhs.

The increase has been general, except under the head 'minor produce' under which the revenue fell from Rs. 43,000 to Rs. 37,000, and is described as due to the poor state of the pod crop and the smaller area given out for cultivation. The revenue from lac decreased by Rs. 2,000. The grazing revenue rose from Rs. 44,000 to Rs. 48,000.

The outturn of timber decreased by 16 per cent., from 3·7 lakhs of cubic feet to 3·1 lakhs. The revenue from it however increased by 42 per cent. from Rs. 1·07 lakhs to Rs. 1·52 lakhs. The high prices that prevailed enabled contractors to give higher bids at the auction of coupes.

The fuel exploited increased from 188 lakhs cubic feet to 217 lakhs, or 15 per cent., while the revenue increased from 3·1 lakhs to 4·6 lakhs, or 48 per cent. This followed also on the extraordinarily high rates that prevailed for fuel for a time, due to the competing demands of the military and the civil population.

The record of punishments inflicted on subordinate establishment shows a satisfactory decrease over the past year, though the resignations among the inferior establishments have been many—almost double the number of last year. The Commissioner accepts the explanation given by the Deputy Conservator. Government must go into the labour market as do other employers, and it cannot expect to obtain honest and contented servants on less than market rates.

Owing to a high and prolonged inundation, the area flooded rose from 4,48,000 acres in 1916-17 to 5,61,000 acres during the year. There was also heavy rainfall in the hilly tracts. The number of forest offences fell as a consequence below last year's figure, except in the case of fire, in which they increased from 88 to 103, affecting an area of 3,846 acres, compared with 1,988 acres in the last year. The increase chiefly occurred in the Karachi division, and is attributed to the late inundation which kept graziers in the forest longer than usual and to the inability of the Range Forest Officers to exercise proper supervision owing to the flooded condition of the roads.

Cases of unauthorised fellings similarly decreased from 1,741 to 1,565; and of illicit grazing from 1,972 to 1,693. The decrease under both the classes occurred chiefly in the Hyderabad division, and is attributed to the failure of the babul pod crop and to the fact that the hill cattle owners finding sufficient grass in the hills did not bring their cattle to the forests.

The results of prosecutions were fairly satisfactory, the percentage ending in convictions being 76 against 77 in the preceding year. The number of cattle impounded rose from 15,000 to 17,000.

No working plans were revised during the year.

The demand of the military department for the supply of fuel was as great as before, the export during the year to Mesopotamia alone amounting to 132 lakhs of cubic feet, which is more than half of the total annual outturn of the forests.

Serious complaints arose from every quarter regarding the increase in the price of fuel at the beginning of the year. The situation was however made easier by inducing some contractors to sell fuel at fixed rates. Where this could not be arranged, additional coupes were thrown open, and depôts started in some towns for the retail sale of fuel at fixed rates. These steps have been described in detail by the Deputy Conservator. There has never been any accurate knowledge of the supplies available from revenue jungles. The Commissioner has directed these shall be examined both by the Revenue and Forest Departments, and hopes to be in a position to give more detailed information next year.

The proposal to supply steamer and barges to the Forest Department referred to in paragraph 12 of the Commissioner's review of last year is still under consideration.

There are many further points of interest in the Sind Forests, but on these the Commissioner has been asked to report by Government Order No. 9580 of 21st September 1918 in the Revenue Department. Nor is the annual review the place to offer detailed suggestions on questions of policy and administration. The Commissioner can however merely repeat his steadily growing conviction that the capacities of the Sind forest are unknown. There has been no proper check of their outturn. Possibly they have not the same interest for the sylviculturist as have forests in other places, but their economic possibilities are great. With a strengthened staff which will run the forests on business lines, not only will Government get a greater revenue, but the economic benefits to the people will be enhanced. It is not possible however to build up an industry without the investment of capital, and it will be necessary to discard the idea that the Sind forests are an unimportant charge, requiring only indifferent supervision and no funds.

Mr. Thomson has shown commendable energy since he took over charge of the circle. The Commissioner regrets it has been necessary to recall him to the Presidency.

H. S. LAWRENCE,
Commissioner in Sind.

REMARKS OF THE CHIEF CONSERVATOR OF FORESTS, BOMBAY PRESIDENCY, ON THE ANNUAL ADMINISTRATION REPORTS OF THE FOREST CIRCLES IN THE BOMBAY PRESIDENCY INCLUDING SIND FOR THE YEAR 1917-18.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

I.—Alteration in Area.

The total area of forest—

at the end of 1917 was 14,989 sq. ms. 110 acres and

at the end of 1918 was 14,975 sq. ms. 265 acres

in consequence of additions of 16 sq. ms., 108 acres and losses of 29 sq. ms. 593 acres or a net loss of 13 sq. ms. 485 acres principally due to erosions by the river Indus in Sind. Disforestments were effected for cultivation, railways, irrigation. Additions took place in Sind by accretions along the river and in the Southern Circle by afforestation of a few survey numbers lying waste for the last 30 years and surrounded by forest.

In the Southern Circle the forests of Ratnagiri consisting of 26 sq. miles were transferred to the Revenue Department ; there was no use in keeping them under the Forest Department with the Collector as Divisional Forest Officer, for they were practically never inspected, were badly looted in consequence and must finally disappear. There were transfers from Revenue mangement back to Forest mangement of 97 square miles in Belgaum, Dharwar and Bijapur districts as it was found that, under the former, there was no supervision and the growth was gradually disappearing through looting.

In the Northern Circle the area under the Revenue Department is 576 sq. miles 106 acres consisting chiefly of protected forest while the Central Circle shows 1,666 sq. miles 484 acres under it, mostly pasture reserve ; there are no forests or parts of such under Revenue mangement in Sind, while the Southern Circle has only 157 sq. miles of which all but a few miles are pasture reserve. This makes a total of 2,399 sq. miles 590 acres as compared to 12,575 sq. miles 315 acres under Forest mangement of which all but 500 sq. miles more or less is reserved forest. The two classes of reserved and protected forests are each sub-divided into forest proper, fuel and fodder reserves and pasture reserves ; the area of protected forest is about equally divided between the two departments, the Northern Circle owning 813 sq. miles of it including 325 sq. miles of leased Dangs (these are forest proper) in Surat division. These leased Dangs forests are 655 sq. miles in extent and 330 sq. miles are reserved forest—the whole of it extremely valuable, containg some 40—50 per cent. of fine teak.

2.—Forest Settlements.

There were no settlements of any importance remaining to be done in any of the three northern circles. In the Southern Circle no progress was made with the arrears mentioned in the year 1914-15 because there was no staff to do the work, war-supply requiring all available energy. Northern Circle mentions that the settlement of Peint taluka requires revision, which remark undersigned can substantiate. In Sind there are always accretions to be dealt with, a little every year. Most of the work done was confined to notifications under section 4 of the Forest Act.

3.—Demarcation.

In the Northern Circle nothing was done to diminish the 103 miles remaining; only upkeep was possible. In the Central Circle the only remaining 124 miles were reduced to 16 which now represents the total amount of work to be done. In the Southern Circle 31 miles of the State boundaries between Mysore and Kanara, Goa and Kanara, and Savantwadi and Belgaum were completed, 17 miles remain to finish the work. Other outstanding work of some 130 miles also remains. In Sind 41 miles of line were cut out of last year's 373 of which 7 only had to be paid for, the rest being done by free labour according to custom : slightly over 100 sq. miles of *kacha* (accretions and lands similar to them) remain to be divided into half mile compartments by cut rides. Repairs to old lines in all Circles, amounting to 25,000 miles more or less, together with the new work amounted to Rs. 7,383 in the whole Presidency and Sind.

4.—Forest Surveys.

No surveys remain to be done except departmental surveys in Sind where conditions are such that some work has to be done every year because of new land thrown up by the Indus. 760 sq. miles were thus surveyed.

The total amount spent in all circles under the head "Constitution of State Forests" was Rs. 16,325 as against Rs. 23,411 last year.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1.—Regulation and management.

(a) *Preparation and control of Regular Working Plans.*

No new plans were made during the year, neither was any new revision work undertaken owing to war-work; in the Southern Circle the office of the Working Plans division was held by the Conservator because of shortage of staff.

No new plan was sanctioned during the year. The following were submitted for sanction:—

Southern Circle:—(1) Arbail slope Plan, (2) Kalghatgi Range Plan, (3) Bankapur and Hangal Ranges Plan.

Only one revised plan was sanctioned, namely that for the Hyderabad division in Sind.

The revised plans for the Thana forests in the Northern Circle, for the Satpura forests in the Central Circle and for the Sukkur, Shikarpur and Larkhana divisions in Sind which consist of combined former plans altered to suit present-day conditions as advised by the Inspector General of Forests are practically ready for submission for the sanction of Government. There are other plans that need immediate revision in the Southern Circle but there is no staff to do the work; *data* for the revision of the Peint plan in the Northern Circle and for the forests of the Poona division are to be collected immediately or have been collected and it is hoped the plans will be ready for submission next season.

The control was interfered with considerably by war-requirements of the Munitions and by lack of staff, labour and carting facilities due to war conditions. In the Northern Circle work is reported to be two years in arrears; in the Central Circle coupes remained incompletely worked; in the Southern Circle the work is in arrears in Belgaum and some of the Kanara divisions and working plans' prescriptions had to be departed from for timber and fuel supply for war purposes. In Sind there were deviations from plans due to the same cause as much fuel was exported.

(b) *Preliminary Working Plans.*

None in the Northern Circle or Sind. The revised Satpura plan was being prepared in the Central Circle. In the Southern Circle four were under preparation: (1) Revised plan for Block XIII of Eastern Division, Kanara; (2) revised Khanapur plan; (3) Revised Golihalli plan and (4) the Belgaum Range plan, all three in Belgaum.

(c) *Plans of Operations.*

Prepared, submitted and duly carried out as far as circumstances permitted. Unremunerative works such as wells, buildings, etc. were postponed with a view to economy under orders from Government.

2.—Communications and Buildings.

(a) *Roads and Bridges.*

Expenditure was incurred under this head as roads and bridges are absolutely necessary for working out material and, as remarked before, as much as possible was required for war purposes. A railway was commenced and the greater part of it finished by the end of the season from Dandeli in the Northern Division, Kanara, of the Southern Circle on the Kalinadi river (which is where all the big timber from a wide area of the best teak jungles of Kanara is brought by carts) to Alnavar on the Madras and Southern Mahratta Railway. Here, also, in Kanara Western division, new roads were made and continued, costing some 25,000 rupees, while in Belgaum Rs. 15,000 were spent on one from Gunji on the Madras and Southern Mahratta Railway to Shirol in Khanapur taluka. The new Kanara roads were all

made to tap the great forests of the Gund plateau and the Kalinadi river slopes and the junglewood forests in Karwar on the Goa frontier. In all 23 miles including bridges were made. Other roads were repaired and metalled specially for war-work amounting to 14 miles. The total expenditure on roads and bridges was 57,000 rupees. The preliminary amount expended on the railway was Rs. 2,75,000.

In the Northern Circle 45 miles of road were aligned and made ready for traffic for 18,000 rupees. Rs. 9,000 were spent on repairs.

In the Central Circle 7 miles of new road were constructed and 319 miles were repaired at a cost of Rs. 11,000. Roads are badly wanted in North and East Khandesh.

In Sind water transport is available and generally used. The rides through the forests will eventually be made into more or less practicable cart-tracks which will suffice for the work to be done. The total expenditure amounted to Rs. 2,03,675 excludidg the debit on account of the railway line.

(*b*) *Buildings.*

In the Northern Circle Rs. 25,000 were spent under this head on quarters for subordinates, etc., and repairs. Houses are badly wanted as a very few exist as yet and forest work has suffered thereby in the past. Attention is, however, now sufficiently directed towards remedying the defect.

The Central Circle spent Rs. 18,500 on new works and Rs. 2,500 on repairs; the new building being quarters for subordinates the provision of which, in the past, had been greatly neglected.

In the Southern Circle Rs. 9,000 were spent on new buildings for subordinates and additions to former constructions. Repairs cost Rs. 5,500. The circle is the best provided of any with quarters for officers.

Sind spent Rs. 6,700, on an inspection bungalow and repairs to other buildings.

The total expenditure under the head was Rs. 68,583.

(*c*) *Miscellaneous.*

Under this head come wells and repairs thereto, hedges, fences, waterways, telephones and small irrigation works in Sind.

The expenditure was Rs. 3,400 on seven new wells and repairs in the Northern Circle; Rs. 472 in the Central Circle on preliminary work to wells, repairs and fencing. In the Southern Circle over Rs. 10, 000 were spent on experimental work on the water-ways in the Kaneri and Kalinadi rivers for floating timber; three new wells, preliminary work on four others and telephone lines. Sind spent Rs. 1,500 on minor irrigation works and Rs, 3,500 on repairs to existing works.

The total expenditure for the Presidency and Sind was Rs. 19,548.

3. Protection of Forests.

(*a*) *General Protection.*

The statement of offences for the different circles show the following results:—

Cases taken to Court 1917-18	940
Do. 1916-17	874
Cases average of past 3 years	986
Compounded and let off with warning 1917-18	17,251
Do. 1916-17	17,330
Cases average of past 3 years	17,345
Undetected cases 1917-18	3,662
Do. 1916-17	3,997
Undetected average of past 3 years	4,047
Total 1917-18 ..	21,763
Total 1916-17 ..	22,201
Total average of past 3 years ..	22,378

The figures are all made up of (1) fires, (2) unauthorised fellings, (3) illicit grazing and (4) other offences; of these unauthorized grazing, 2,851 cases, constituted by far the greater percentage in the Northern Circle; in the Central Circle they number 3,137 out of the 7,138 cases; in the Southern Circle 1,460 out of 5,111, less than 30 per cent; in the Sind Circle about 49 per cent. Unauthorised fellings come next with 2,771, 2,972, 2,446 and 1,565 respectively. Fires are 274, 349, 1,016 and 103; other offences 230, 680, 189 and 27.

The increase in the Northern Circle is chiefly due to grazing and unauthorized fellings in the Nasik sub-division and to grazing in East Thana and the Panch Mahals; due to slackness in the last division and to better attention in the first and second. Grazing offences increased by 434 in the Central Circle, fires decreased by 114, due mostly to the dryness of the season. In the Southern Circle the number of offences of grazing increased slightly but all others decreased; the reason being most probably the concentration of the staff on war-work and, as regards decrease in the number of fires, favourableness of the season, for there was late rain. There were a number of malicious firing in the Eastern Division, Kanara. Decrease in Sind was due to the absence of professional graziers, many of whom remained in the hills where there was plenty of grass owing to heavy rainfalls. Many of the grazing offences throughout were due to persistent trespass in closed areas. The policy of rewarding subordinates and villagers for detection of offences and punishing them for neglect was continued.

The cases tried by the court increased by 66 over last year and were less than the preceding 3 years' average by 46; 940 in all; 1,235 if those pending from last year are included. Out of these 932 were successful, 116 resulted in acquittal; the percentage of convictions being 86·7 per cent. as against 84·1 per cent. of last year.

Compounded cases were 16,183; those warned 997 cases. Rs. 1,00,477 were recovered as compensation as compared with Rs. 86,651 of last year.

In the Northern Circle there were 1,800 offences in the Panch Mahals chiefly under unauthorized fellings and grazing; there were only 96 in Surat. In the Central Circle, Poona division is worst with 2,153 of similar kinds, North Khandesh best with only 551. In the Southern Circle the Belgaum division shows most cases with 1,485, the Kanara Eastern division least with 355. Sind has 1,366 in Sukkur and only 318 in Karachi.

(b) Protection from Fire.

There were 2,665 fires as opposed to 2,053 last year. In the Northern Circle the area burnt was the same, 24,000 acres as in last year. The only division that had an increase is East Thana which contains the Tansa Catchment Area, always the worst spot for fires in the circle; all other divisions were better than last year. In the Central Circle fires decreased by 128 and the area burnt by 90,775 acres. Every division showed improvement except West Khandesh. East Khandesh is always the worst but had only 46 cases as compared to 81 last year affecting 17,348 acres compared to 55,924; of which 9,000 acres were due to unburnt fire-traces, left because labour could not be obtained in time to burn them. When the season is too advanced it is always dangerous to fire-trace because of the intensely inflammable quality of the dry grass and the prevalence of high winds. The area is uninhabited and difficult. The forests adjoining Native States are always a danger and fires crossing the Holkari and Baroda boundaries in East and North Khandesh divisions accounted for 13,744 acres. Grass is too valuable in Poona and Satara for the villagers to allow the forests to burn. In the Southern Circle only 7·5 per cent. of the offences were brought home to the offenders. The fire-season here was a short one because of heavy rain in November and the following May but, notwithstanding this, the area burnt was considerably more in the Kanara divisions and Belgaum than it was last year. The increase is stated to have been caused by intentional firing; in the Eastern Division, Kanara, and Belgaum it was specially bad. In the latter division the Collector has issued a dangerous order by which villagers who assist in putting out fires are let off grazing fees so that any villager may burn many jungles and still get a reward if he assists in extinguishing a single one; the difficulty of detecting such offences makes this extremely easy where firing is intentional as it certainly always has been in Belgaum for grazing purposes. In Kanara, the Mamlatdar of Yellapur expressed his opinion that villagers should be allowed to fire the jungle bordering on their fields while the Collector is inclined to

maintain the view that fires in *Bettas* do no harm and should be allowed. Both these opinions are, needless to say, widely known and cannot but have the effect of encouraging a practice which is very inimical to forest conservancy. In the Sind Circle fires increased by 15 and the area burnt by 1, 858 acres from 88 and 1,988, respectively for which the Karachi division is mainly responsible. Most of the cases are due to intentional firing for grazing and shikar.

The usual fire protection schemes were carried out in all circles consisting of traces, patrols and fire stations with watchers; the stations being confined to the Northern and Southern Circles more particularly. Communal and individual rewards were continued with good results; punishments were likewise inflicted with good results. In the Southern Circle the usual fire-protective measures were continued and the policy of putting the fire-protection entirely in the hands of some villages on lump cash payment was found to have good results. In Sind there has been a regular fire-scheme in force in the Karachi division for several years past and similar schemes will be introduced in all other divisions in future.

(*c*) *Protection from Cattle.*

The impoundings for the whole Presidency including Sind were :—

1917-18.	1916-17.	Last three years' average.
154,023	131,455	137,291

From open and closed forests the impoundings were :—

	1917-18.	1916-17.	Last three years' average.
Open	44,990	42,566	43,457
Closed	109,033	88,889	93,833

In the Northern Circle the great majority of impoundings were goats from open forest and cows and bullocks from closed areas, Panch Mahals division being the worst by a long way with nearly 12, 000 horned cattle, Nasik Sub-division the worst for goats with nearly 6,000. The increase in impoundings generally over last year affected under 6,000 animals with an increase in offences of under 400. This increase was due to the increase in the number of cattle in the Panch Mahals because of a general extension of cultivation in waste lands owing to the rise in the price of food-grains. In North Nasik the concession of free anjan leaves resulted in a reduction.

In the Central Circle, there was an increase of impoundings from open forest, whereas those from closed areas outnumber last year's figure by 11,841—a large increase to which every division of the circle contributes. West Khandesh heads the list with an increase of over 6,000 impoundings and it is said to be due to the absence of rain in the earlier part of the monsoon resulting in there being no grazing outside forests. East Khandesh had rather under 2,600 explained as due to trespass in *kurans* connived at in many cases by the contractors who rent them for grass. The increase is not so bad when it is known that the number of cattle grazed was 44,695 more than last year; the increase in percentage of impoundings corresponding to these figures being 1 per cent. from 4·6 per cent. to 5·6 per cent. Of the 10,57,952 cattle grazed, 9,97,194 paid fees, 60,758 were free. Eighty-one per cent. of 3,731 sq. miles under the Forest Department was open to grazing all the year, 3·2 per cent. part of the year; 15·5 per cent. was closed. Besides this 1,667 sq. miles under the management of the Revenue Department was likewise open all the year round.

In the Southern Circle the areas open to all animals for the whole year amounted to 66·6 per cent. with the exception of browzers which were only allowed into 3·6 per cent. These figures differ from those given last year but the latter were faulty and there has been really no change in the above proportions. The increase in impoundings over last year is under 2,000 and Belgaum and Dharwar-Bijapur are mainly responsible for it. It is put down to recent increases in forest areas in both divisions as well as to more accurate reporting. The difference in the number of cattle grazed between this and last year is 82,000 and is not explained by the Conservator but is probably due to the fact that cattle disease was rife both in Kanara and Belgaum.

In Sind 85·37 per cent. of the forest area was open to grazing of horned cattle; browsers were admitted to 46·9 per cent.—camels and goats. The increase in impoundings over those of last year is 2,599, those from closed areas having risen by 3,284 while those from open forest decreased by 685. Hyderabad division accounts for more than half the increase which is due to stricter supervision on the part of the present Divisional Forest Officer as compared with the lax regime of his predecessor. The nuisance of so-called wild cattle still exists in this circle, *i.e.*, cattle that are intentionally driven into the closed coupes by the owners to avoid paying fees. It existed 20 years ago and should have been stopped by now.

Rs. 5,22,576 were realized from grazing alone in the Presidency and Sind by the Forest Department, the Northern Circle being responsible for Rs. 1,01,360; the Central Circle for 3,20,014; the Southern Circle for 62,268 and Sind for 38,934. The revenue represents 8·2 per cent. of the total earnings of the Department.

(d) Protection against injuries from Natural Causes.

Creeper-cutting was carried out in the forests of all circles as usual, the only species of importance in Sind being Kamo or *Phyllanthus reticulatus*; in the Central Circle it is only in the Kolaba coast division that they give trouble; in both the Northern and Southern Circles there are many troublesome species. No other damage is reported under this head from the Northern Circle but the Conservator does not mention what report was received from Dehra Dun about the small moth that damaged the *Casuarina* in the Umbergaum plantation. In the Central Circle energy was expended in the Poona division in the eradication of prickly pear and, in Khed, Junnar and Akola ranges *tals* were constructed to prevent erosion, the resulting pockets of soil behind them being utilized for plantations. In the Southern Circle teak was attacked by defoliating caterpillars though whether *Pyrausta, Hyblœa* or *Eupterote* is not stated, notwithstanding that specimens were sent to Dehra Dun for identification. *Casuarina* on the coast in Honavar range of the Southern Division, Kanara, are said to have been killed by some unknown cause—which is probably the larva of the moth *Arbela quadrinotata*. In the Kodibag *Casuarina* plantation much damage was done by inroads of the monsoon seas notwithstanding efforts at diversion of the current by groins put up by the Public Works Department. Wild elephants are increasing in Belgaum and the Northern Division, Kanara, and an effort will be made to trap some in pits this next year. The Chief Conservator of Forests and two Divisional Officers went to Coorg to see how it was done, as operations have been carried out there with success for many years past. There is also a herd of elephants in Honavar in the Southern Division, Kanara, which requires attention. *Lantana* is also spreading and efforts were continued to eradicate it in all divisions where it exists: Belgaum, Kanara above the ghats and Dharwar-Bijapur. The spread of prickly pear and *Lantana* is greatly helped by villagers using the two species for fencing their fields, a common practice in many places. Sind reports considerable damage from frost in January particularly to young seedling and coppice growth. Rats were troublesome in Karachi and Larkana and porcupines damaged *Dalbergia sissoo* (Tali) plantations in Sukkur. Some of these latter were trapped.

4. Sylviculture.

(a) Natural Reproduction.

(*i*) Seed.

It was a good year all round for reproduction by seed; in the Central Circle *Hardwickia binata* or Anjan, however, did not produce much as it is a species which only has copious fruit every fourth year; in the Southern Circle honni and blackwood (*Pterocarpus Marsupium, Dalbergia latifolia*) seeded well, matti and teak (*Terminalia tomentosa, Tectona grandis*) only fairly. In Sind there is always plenty of seed lying dormant awaiting the inundations; 876 sq. miles were flooded for a prolonged period and there was also rain; there was, therefore, much natural and artificial regeneration. The river went down but, unfortunately, again rose in October and submerged and killed much of what had come up; frost supervened later on to make matters worse. A fair amount of artificial regeneration was, notwithstanding, finally obtained—its continuance will depend upon the ensuing season.

(ii) Coppice.

In the Northern Circle it was excellent; also in the Central Circle where it benefitted much from successful fire-protection. In the case of Anjan, when the stools

are cut flush with the ground, they often fail to coppice to the extent of 40 per cent. of the trees felled. To remedy this experiments were carried out in pollarding—the species is mainly used for cattle-fodder in times of scarcity as the timber is so hard that there is little demand for it though it is otherwise a good wood. Reproduction in the Southern Circle was satisfactory and in Sind it was, as far as there is any coppice, also satisfactory.

(*b*) *Artificial Reproduction.*

Regular Plantations.

Northern Circle.—Limited to teak in Bulsar-Chikhli range of Surat, plantations of *Casuarina* on the coasts of North Thana and West Thana and babul coupes in Nasik sub-division. The teak plantings are completed; 36 fresh acres of *Casuarina* were planted and the babul coupes were resown with good results. *Cassia auriculata* or Tarwad for tanning purposes was sown over areas varying from 120 to 2,000 acres in all above-ghat divisions—the species will not grow below the ghats. Failure of rain handicapped results badly.

Central Circle.—There are only *Casuarina* plantations that come under this and these are located in Kolaba district. Coupes were restocked by putting out plants grown in nurseries; the growth is satisfactory.

Southern Circle.—Here also *Casuarina* was planted out in Kanara and Ratnagiri on the coast with successful results. The teak plantations in Kadra, Sulgeri and Honavar were thinned to supply poles for Munitions by which operation they benefited considerably. All plantations are doing well.

Sind Circle.—Confined to *Dalbergia sissoo* or Tali in the Sukkur division.

Cultural Operations.

Under this head comes the planting, dibbling and tending of teak and other species in all the timber forests of the Presidency and Sind. Natural seedlings found in forests are tended where required; others are planted out from nurseries or from other parts of the forest where found growing naturally; seeds are dibbled in where plants are not obtainable or where it is cheaper to do so. During the first year or two all these require tending and upon it depends the future of our forests.

Northern Circle.—The regeneration of the coupes cut is reported to be extremely satisfactory, and this is a fact. Much work was done by tending, planting, and dibbling. The Conservator maintains that dibbling gives the best results when cheapness and worth are considered, provided that these seeds are put in charcoal debris and this is true. He says that these operations, supplemented by tending in later stages where necessary together with the coincident freeing of the teak coppice (and probably other in certain cases), promise to give property in Thana which will be comparable for value with the richest in India. And this is probably a fact.

Central Circle.—Operations here were effected by planting in pits, on mounds and in ploughed areas. In the dry forest lands of Poona the Ranger, Mr. J. V. Gupchup, who is stated by the Conservator to be an enthusiast at his work, can show many miles of successful growth of sandal, teak and other species as well as large areas covered with young plants raised in combination with field-crops. Elsewhere also such operations have been carried out successfully. In Kolaba teak coupes have been planted up with much success, over 1,00,000 of plants having been raised in addition to 30,000 seedlings already existing from two previous operations. In Khandesh good work has been and is being done in this connection.

Southern Circle.—In the Kanara divisions much work was accomplished—principally by weeding and tending natural seedlings, planting out from nurseries and sowings. *Taungya* cultivation—burning refuse after exploitation and growing a grain crop (ragi in this case) along with teak plants—was tried over a small area with the result that 70 per cent. of the teak is alive. The method is cheap and efforts will be made to extend it but villagers to cultivate are few and unwilling to go far afield. 6,00,000 of seedlings were tended in the Eastern Division, Kanara, and 90,000 were planted in areas recently cut over; in the Central Division, Kanara, 285 acres were sown with teak seed; in the Western Division, Kanara, thousands of natural teak seedlings were tended and mulched and freed from surrounding

growth and extensive regeneration operations were tentatively made after clearing the ground and removing some of the overhead cover. In Belgaum, too, thousands of teak seedlings were attended and failures replaced; much good work was also done in planting and tending sandal trees of which millions exist in the seedling stage throughout the *Lantana* areas. Similar operations were carried out in Dharwar-Bijapur.

Sind Circle.—764 acres of high level land were treated on the agriculture-cum-forestry system but operations were not very successful; 12,302 acres of cut coupes were broadcasted with 3,861 maunds of Babul and Kandi (*Acacia arabica, Prosopis spicigera*) seed but the irregular inundations rather interfered with regeneration.

Under Government Orders operations were also undertaken for the propagation of *Cassia auriculata* or Tarwad for tanning bark. In the Northern Circle, where most of the seed was collected and distributed thence to the different circles, areas of from 120 to 2,000 acres were sown by dibbling. The plants came up all right thick as grass but the failure of the rain prevented their survival in most cases. These operations will be continued. In the Central Circle similar operations were undertaken with similar results in every division. In Dharwar-Bijapur division of the Southern Circle also operations were conducted as well as in Belgaum but want of rain stopped the growth of the young plants.

(c) *Operations for the Improvement of the Growing Stock.*

These operations were carried out in all three Circles of the Presidency and consisted in cutting creepers, cutting back bad growth so as to get good coppice from the stools; improvement fellings, thinnings and clearings were made wherever it was practicable. Time and staff were both wanting. In the Central Circle systematic work was started in coupes under the revised Satpura plan in cutting back all diseased and malformed teak under 15″ girth; and it was badly wanted as most of the growth there has been badly injured for many years in succession by terrific fires. In Sind 4,85,000 c. ft. of thinnings including removal of dead stems were carried out and brought in a revenue of Rs. 30,000. Creepers were also cut back.

5. Exploitation.

(a) *System of Management.*

(i) Major Forest Produce.

Clear fellings.—In the Northern Circle these were extended to the Western Mahals, Godra and Kalol under the uniform method with a rotation of 60 instead of 30 years, entailing concentration of work together with excellent financial results. In the Central and Southern Circles they were carried out in the Babul forests of Poona and East Khandesh, in the *Casuarina* plantations of Kolaba and the *Casuarina* plantations of the Western and Central divisions of Kanara. These plantations of *Casuarina* were managed formerly on a 30-year rotation but it has been proved that one of at the most 15 years is far sounder financially, producing over Rs. 300 per acre at that age. In Sind clear felling is only resorted to for erosion strips (system for the rest of the forest area being clear felling with standards left to produce large timber). This last is said to be unsatisfactory and it is recommended that the reserves should be by groups. This is probably correct. 15, 232 acres were exploited under this system; 5,058 acres of erosion strips were felled—19 sq. miles and 7·9 sq. miles.

Selection fellings.—These are confined to the Northern and Southern Circles, none taking place in either of the other circles. In the Northern Circle they are nominally confined to the below-ghat jungles of the Nasik division but the system adopted in the Dangs of Surat is practically this also, as it is impossible to extract at a profit anything but the teak under present conditions of communications. In the Southern Circle it is the method hitherto followed in Kanara for the large teak forests. Under it altogether 5,075 teak, 79 blackwood and 5,658 junglewood trees were exploited; or 10,812 trees in all as compared with 9,550 the year before.

Improvement fellings.—In the Northern Circle these are prescribed for the Dangs and Bulsar-Chikhli of Surat division and the Anjan forests of the North Nasik and consist in cutting out bad growth or trees interfering with better ones. As above mentioned, in the Dangs it amounts to the selection method. In the Central Circle these are confined to the Matheran and Mahableshwar forests, some teak forests of

West Khandesh, the fuel forests of Akola and Lonavala on the ghats in Poona and two working circles of the revised Satpura plan in North Khandesh and East Khandesh. Work was done in all of them. In the Southern Circle, in Kanara and Belgaum they are made use of throughout under working plans to get rid of bad trees and to favour the good growth. Under such fellings 19,398 teak, 2,209 blackwood and 9,900 junglewood trees were cut in those jungles or a total of 35,507 as compared with 19,125 last year. There were none in Sind.

Coppice fellings.—Confined now to the Mandvi range of Surat, the Halol range of Panch Mahals and the above ghats of Nasik in the Northern Circle. The Central Circle forests are worked mainly under this system for fuel and small timber. In the Southern Circle all the fuel and teak pole forests are worked under the system, 7,004 acres being cut over in the organized area and 8,032 in the unorganized jungles in all districts, compared with 6,295 and 6,067 last year. In Belgaum the price realized per acre of fuel rose from Rs. 68 last year to Rs. 149 this year; in other divisions remained about the same, *i.e.*, Rs. 65 for the organized areas, Rs. 10 for the unorganized. In Sind there are no forests under coppice because the few species existing are not ordinarily amenable to that method of reproduction.

Unregulated fellings.—These are still in vogue in the Central Dangs of Surat of the Northern Circle, where there is as yet no working plan, and were extended this year to the North Dangs to provide material for Munitions. In the Central, Southern and Sind Circles, ordinarily, such fellings are resorted to only for free grants, departmental buildings and to remove dead and dying trees where necessary as well as for the exploitation of sandalwood trees. Special fellings were, however, made this year for Munitions in West Khandesh. There were also sales of royalty trees in occupied lands in all divisions of the Central Circle outside forest, as usual. In the Southern Circle the price of sandal wood rose from Rs. 422 to Rs.440 per khandy of 560 lbs. and the revenue realized from Rs. 46,482 to Rs. 56,540. With care and protection there is no reason why this species should not yield 5,00,000 or even more in a few years. Special fellings were also made of all species of trees for Munitions in the Kanara and Belgaum divisions. Details are given in section (5) (b) (i) below.

(ii) Minor Forest Produce.

Under this head come bamboos, grass and grazing, myrabolans (Hirda altogether in these days—*Terminalia chebula* fruits), various kinds of fruits for pickles, etc., various species of leaves for making native cigarettes (*Bauhinia, Diospyros* or Apte, Temburni) or fans (in the Southern Circle from *Corypha umbraculifera* palms or Tale) flowers, (*Bassia Latifolia* or Mhowra for making liquor), honey and wax, cinnamon, *nux-vomica* (for strychnine), stones, etc. Cinnamon is confined to the Southern Circle as also is *nux-vomica*; the others (except bamboos which do not grow in Sind) are common to all Circles. Bamboos come next, being most largely represented in the Southern Circle (Kanara and Belgaum) but are a bad second to grass. *Bauhinia* leaves produce a fair revenue in the Northern Circle and myrabolans are responsible for a considerable number of thousands of rupees in the Southern Circle as is also Tarwad bark.

Some of this produce is worked departmentally, some by contracts as found most convenient. The total revenue was Rs. 10,25,166 as against Rs. 9,31,595 last year.

On the whole, minor produce is badly and incompletely worked and should be worth four times what it is, especially in the matter of grass, bamboos, hirda and other tanning materials.

(*b*) *Agency of Exploitation.*

(i) Departmental Agency.

Departmental agency is only extensively employed in the Southern Circle for forest works and, even there, it is more or less a misnomer as nearly all the cutting, fashioning and transport of timber and fuel is done by contract. The wood remains, however, the property of Government throughout the operations and is sold in public auction after being brought into depôt by the contractors who merely get paid for the conversion and transport. These operations are supervised throughout by the staff of the department, the stuff to be taken being marked beforehand, or the area to be cleared fixed; the method of conversion, length of logs, fuel pieces and

so on is also fixed. In all the other Circles the work is purely by purchasing contract, the material being bought standing and is the property of buyers from start to finish, being exported to their own depôts for sale. In the Southern Circle even, sometimes, large timber is sold standing because the staff is not sufficient to deal with all the work there is to be done; the teak pole areas and much of the fuel forests are nearly always worked by purchasers. In the Northern Circle, on the other hand, the large timber forests of the Dangs in Surat are worked departmentally. Departmental work of the kind described above is far more remunerative to Government than purely contract work and the revenue obtained under it is commonly double that brought in by the latter system. A certain proportion of the timber in Kanara divisions and in Surat Dangs is converted into sleepers, planks, scantling and paving blocks in sawmills which are the property of Government with the exception of a small one in both circles which is run by private owners in forest by arrangements made between them and the department. There are five departmental mills in Kanara now and one in the Dangs, or eight working in the Bombay forests. Only one of these, namely that at Kumbarkop (Dandeli) in the Northern Division, Kanara, of the Southern Circle, is large enough to cut up big logs and turn out decent-sized planks and scantling. All the others are employed in cutting sleepers for the railways and, up to the present time, these have all been of teak; they also produce small scantling and paving blocks. The single departmental mill in the Dangs turned out last year 12,247 sleepers, 12,212 boards, 64,265 battens, 39,179 scantling.

Only three of the Kanara departmental mills were worked including the largest which, however, only came into incomplete operation. There were many difficulties to be overcome. Skilled labour was not forthcoming, men who came as foremen absconded because of the uncongenial surroundings; labour was insufficient. Two of the three worked throughout the year, one only for six months because of these difficulties, but none of the three very satisfactorily or up to their full capacities. The two mills that worked throughout produced Rs. 1,27,564 worth of material compared to Rs. 96, 286 last year; the charges being Rs. 61, 151 as compared with Rs. 74,182 last year; the net income was Rs. 66,151 as compared to last year's Rs. 22, 104 but will be more next year. The result of the six months' working of the third mill was Rs. 7,059 worth of sleepers, planks and scantling costing Rs. 5,941 which shows only a small profit of Rs. 1,118, for the time a disappointing output but explained by the difficulties encountered. It will be far better next year.

The fourth mill had to be taken to Sulgeri in the Western Division, Kanara, from Londa junction over bad roads, a distance of 67 miles, down a dangerous ghat and it was hardly ready for work at all at the end of the year. That allocated to Ramangoli in the Central Division, Kanara, was not up even at the finish, as neither labour nor establishment were to be had.

Government appointed, upon representations made, a Superintending Foreman for the five Kanara sawmills and most of his time was employed putting up the necessary machinery at Kumbarkop so as to make the mill capable of turning out sawn material for Munitions during the war. Teak and junglewoods will now be sawn up at this mill and seasoned stocks of material will be kept. Markets will thus, it is hoped, be found for little known species of timber.

The contractor's sawmill in Eastern Division, Kanara, turned out 18,404 sleepers and some 9,000 scantling pieces on a 5/8ths share system to the contractor, Government getting 3/8ths and realizing Rs. 6,796 as against Rs. 4,515 last year.

The outturn in the Northern Circle from main fellings in the Dangs was 1,864 teak trees aggregating 2,241 khandies (12·5 c. ft. each or 4 khandies to the ton) and 1,304 junglewood, including blackwood of 1,902 khandies which were all removed to the Songhad depôt in Baroda territory on the Tapti Valley Railway. Thinnings, besides, yielded an anticipated revenue (not yet realized) of Rs. 20,000. In North Nasik 38,000 c. ft. of fuel was cut for the Trimbak firewood depôt and, in North Thana, one lakh of bamboos were felled for Munitions.

In the Central Circle, departmental agency was resorted to for the supply of 148,902 c. ft. of fuel for the Matheran and Mahableshwar fuel depôts, for coupes that found no purchasers and for improvement fellings in the babul kurans of Poona. Fellings (unregulated) for supply of timber to Munitions in West Khandesh to

the extent of 1,092 khandies realized a profit of Rs. 6,151. Minor produce, mhowra flowers and hirda realized Rs. 12,996.

In the Southern Circle the amount of material sold and the revenues realized were :—

	Rs.
Timber 12,59,249 c. ft.	12,01,821
Fuel 43,67,541 c. ft.	2,58,164
Sandalwood	56,540
Bamboos and other minor produce	88,887

Timber actually exploited during the year was 18,38,754 c. ft. as compared with 10,93,661 last year ; fuel 46,38,276 c. ft. as compared with 41,15,014 c. ft. or an increase of over 700,000 c. ft. and 5,00,000 c. ft. respectively ; the bamboos were exclusively cut for Munitions.

The produce supplied to Munitions was teak and junglewood logs, poles and scantling, fuel, tent pegs, Tarwad bark, soft wood planks for ammunition-cases ; they were supplied as under :—

Teak logs	128,534 c. ft. ; poles 19,787 ; scantling 10,050 c. ft. ; 1,00,000 running feet of battens.
Junglewood	83,187 c. ft. ; 74,199 poles ; scantling 471 c. ft.
Fuel	8,493 tons of 100 c. ft. each.
Bamboos	1,374,700 of different kinds.
Tarwad bark	76 tons from Dharwar-Bijapur.
Hirda	75 khandies from Eastern Division, Kanara.

The 26 pairs of buffaloes and bullocks with carts employed on departmental work in Kanara did useful work in carting metal for roads and sleeper-pieces to the mills.

In Sind 3,13,870 c. ft. of babul was brought in departmentally from thinnings and realized Rs. 21,286 for an expenditure of Rs. 5,062 representing a net return of 325 per cent. on outlay. 77,026 c. ft. of fuel were supplied to Government steamers for the cost of collection.

(ii) Purchasers.

Nearly the whole of the produce in the Northern, Central and Sind Circles is removed under this head. So much is this the case in the Northern Circle that the actual market price, i.e., the price the stuff commands in the open market, is not known to the department. Nobody has any idea for example what a teak-pole or junglewood pole, or log is worth. There is a sort of general idea that a cubic foot of teak fetches at least Rs. 8 at a depôt near the coast at the present moment but the department does not get half that. Some departmental fellings have been undertaken to find out both what the yield per acre is in the matter of material and what the real cost of working and price of timber may be. The value of major produce disposed of was Rs. 27,56,677 ; of minor produce Rs. 5,94,931.

In the Central Circle similar conditions prevail. 291 coupes were sold for Rs. 3,47,050 as against 214 last year for Rs. 2,54,209. The increase in the number of coupes was due to fresh areas added in Poona and to a revision of plan in the North and East Khandesh. Grass brought in over Rs. 1,45,000 instead of Rs. 1,11,000 last year ; grazing Rs. 1,75,000 instead of Rs. 1,68,000 the increase in head of cattle grazed being about 50,000.

Southern Circle disposed of over 7,000,000 c. ft. of timber and fuel for Rs. 4,31,000 odd and minor produce to the extent of 569,000 as compared with over 7,300,000 c. ft. for Rs. 3,82,000 average during the past three years for major produce and Rs. 5,15,000 for minor produce.

Sind Circle.—Less timber and much more fuel was sold than last year, the figures being :—

2,70,346 c. ft. timber for this year ; 3,53,557 last year
214,33,701 c. ft. of fuel for this year ; 1,88,43,243 last year

with values of rupees respectively :—

1,47,106 for this year ; 1,05,527 last year.
4,53,188 for this year ; 3,01,006 last year.

the increase being due in fuel to the rise in the price from Rs. 16·1 last year to Rs. 30·06, this owing to scarcity resulting from military demands for Mesopotamia. Grazing and grass, etc., realized Rs. 81,401, a few hundreds of rupees more than last year. Total revenue Rs. 6,81,419 as against Rs. 4,87,934.

(iii) RIGHTS AND PRIVILEGES.

Privileges vary practically in each district and there are seperate codes for each in consequence. The value of produce removed under privilege by the holders was as under :—

Produce.	Quantity.	Value.
	C. ft.	Rs.
Timber	376,760	3,00,787
Fuel	12,359,475	10,10,511
Bamboos	....	28,021
Grass and grazing	....	6,62,349
Minor produce	....	2,40,859
Total ..	....	22,42,527

(iv) FREE GRANTS.

Free grants of forest produce in the shape of timber, fuel, etc., are made to a small extent in every circle. Their value amounted to Rs. 18,413.

Free grazing was liberally given for good forest protection in Kanara ; timber worth Rs. 1,000 was given for building a soldiers' Institute in Belgaum. A contribution of Rs. 25,000 was also made to Local Boards in the Southern Circle in lieu of timber permits in Kanara and repairs to roads.

(c) *Outturn and sources of forest produce.*

The total outturn of forest produce for the year is under different heads :—

	Timber.
	C. ft.
By Government Agency	2,223,496
Purchasers	4,806,764
Free grants	59,594
Privileges	376,760
Total ..	7,466,614

For fuel these figures are for the Presidency and Sind under the agency heads :—

	C. ft.
Government	5,648,707
Purchasers	34,463,978
Free grants	59,020
Privileges	12,359,475
Total ..	52,531,180
	Rs.
For all minor produce for all circles	4,77,901

making a grand total for all produce of 59,997,792 c. ft. + Rs. 4,77;901. Southern Circle produced over 10,00,000 worth of fuel, Sind over 4,50,000 and the Central Circle over 3,50,000 ; the minor produce value was pretty equally distributed between all circles except under "privileges" where the Southern Circle heads the list with 1,80,000, the Northern Circle being second with over 50,000.

Last year's total outturn was distributed as follows under kinds of produce :—

	C. ft.
Timber	6,400,426
Fuel	49,848,519
	Rs.
Minor produce	4,12,231

CHAPTER III.—FINANCIAL RESULTS.

The total revenues of the four circles taken together are as follows :—

1917-18.	1916-17.	Past 3 years' average.
63,37,579	58,15,378	47,79,706

the expenditure incurred amounting to :—

1917-18.	1916-17.	Past 3 years' average.
34,23,646	25,17,500	24,79,066

giving surpluses of :—

1917-18.	1916-17.	Past 3 years' average.
29,13,933	32,97,878	23,00,640

which shows badly for the year, the surplus being less than last year's 3,83,945 though more than the average of the last 3 years by 6,13,293. The deficit is explained by the monies due from Munitions in the Southern Circle for material supplied not having come in by the end of the year, the outstandings being stated as amounting to 11,50,000. If this were added for the year, the surplus would have been 40,50,000 or over 7,00,000 better than it ever was before. This must be considered eminently satisfactory from all points of view. The gross revenue would then have been very close on Rs. 75,00,000 or nearly 12,00,000 better than the record and over twice what it was eight or nine years ago.

In the Northern Circle, Central Circle and Sind, the revenue came in normally and, although the expenditure incresed in all of them, the outstandings at the end of the year were small and customary because they had no dealings with the Military Department on a scale anything like what the Southern Circle had—the ratios of expenditure to revenue being respectively 29 per cent., 53·7 per cent. and 31 per cent. (compared with nearly 87·4 per cent. in the Southern Circle); last year's percentages were 26 per cent., 59 per cent. and 40 per cent. (with 52 per cent. in the Southern Circle). The percentages of three past years' averages are 39·5 per cent., 65·5 per cent. and 52 per cent. (with 57·25 per cent. in the Southern Circle); if the full revenue had been realized in the Southern Circle the percentage this year would have been 57·7 per cent. which would have been good for the rates of wages prevailing; what is more, it would have been evident that the percentage of expenditure to revenue has actually decreased as the latter has advanced, the total percentage of outlay to revenue would have been for this year 43 per cent., for last year 44·25 per cent. and for the three preceding years (average) 52 per cent., or a reduction in favour of the year of 1·25 per cent. over last and 9 per cent. over the average of the preceding.

The divisions in the Northern Circle all contributed to the increase in the revenue with the exception of North and South Nasik where, however, the fallings off was not serious; the Dangs and North Thana each were responsible for 2,00,000 more than usual. The Conservator puts down the increase to general war prosperity and instances the building of large houses along the Tapti as evidence of this. In the Central Circle, also, every division made a profit over and above that of former years. Grass and grazing were mainly responsible for it in the three Khandeshes, timber and fuel in Satara, Poona and Kolaba. The increase in revenue in the Southern Circle—if it had all been realized, that is—would have been due to supplies to Munitions as well as to exceptional prices obtained in the open market; the prices charged to the Munitions Board were much below what obtained in the country generally. The railway was also supplied with fuel at the old pre-war rate of Rs. 8 a ton which was 50 per cent. below market rates obtaining. Against this the department had to face a very great rise in wage rates; nearly everything was double pre-war prices. In Sind an increase of 1,98,781 over the revenue of last year is due to better sales for annual coupes, more departmental thinnings the material from which realized excellent prices; and heavy erosion which necessitated anticipatory fellings of material which was sold at very favourable rates.

The increases in expenditure were quite normal in all but the Southern Circle where there were several exceptional contributing items, i.e., Rs. 2,75,444 for the Dandeli-Alnavar railway, three new sawmills Rs. 35,578 and departmental work on bamboo cutting Rs. 71,000; added to this coupes were more expensive to mark, cattle were more expensive to keep (grass rose from Re. 1 to Rs. 10 per cart load); sylvicultural labour cost more. Special repairs had to be carried on on roads and

bridges to facilitate transport of war-material; more money was spent on postage and stamps, extra expenditure was incurred for travelling and payment of grain compensation to subordinates.

Consolidated statements for all circles, comparing revenue and expenditure in details of budget heads with those of last year, showing proportions of revenue to expenditure under different heads are given below :—

Year.	Revenue.	Expenditure.		Surplus.	Percentage of surplus to gross revenue.
	Rs.	Rs.		Rs.	
1917-18 ..	63,37,579	A. 19,79,393 B. 14,44,253	34,23,646	29,13,933	46
1916-17 ..	58,15,378	A. 11,86,600 B. 13,80,900	25,17,500	32,97,878	56
Average of the five preceding years.	47,79,706	A. 11,22,975 B. 13,46,091	24,69,066	23,10,640	48

Particulars.	Total.	Percentage.
Revenue.	Rs.	
Major produce	52,00,658	78
Minor produce	10,25,166	20
Miscellaneous	1,11,755	2
Total ..	63,37,579	100
Expenditure A.		
Extension and Constitution	21,430	4
Improvement	7,05,442	52
Exploitation	12,53,521	44
Total ..	19,79,393	100
Expenditure B.		
Administration	2,05,181	14
Executive	5,16,438	31
Protective	9,96,264	55
Total ..	14,44,253	100

CHAPTER IV.—RESEARCH AND EXPERIMENTS.

Under this head very little was done. Tarwad (*Cassia auriculata*) was, under pressure to develop tanning materials for leather required for war-purposes, taken up for its bark and efforts were ordered by Government to be made to augment the natural supply. The Conservator, Northern Circle, had many tons of the seed collected which he distributed to all circles, even Sind. The seed was sown and excellent growth resulted in the Presidency where young plants came up like grass; but unfortunately the ensuing season was extremely unfavourable owing to want of rain and most of them perished. Thousands of acres were sown by ploughing furrows and dibbling and it is more than probable that, with a good year, it will be possible to extend the species.

In the Northern Circle experiments were confined to Tarwad. In the Central Circle and Southern Circle divi-divi (*Acacia coariaria*) was also planted for tanning, but it is a tree and will take at least 15 to 20 years to produce fruit which is the utilizable portion. Some was raised in Kolaba of the Central Circle and in the Southern Circle below the ghats in Kanara, in the Western Division. This was and is a mistake as the tree thrives best away from the sea-coast at an elevation of 2,000 feet, as for example, in Dharwar and Belgaum; doubtless also in Poona and Nasik where the rainfall is over 25".

No further work was done with Salai (*Boswellia serrata*) tapping for gum but results were communicated, of the experiments made in the Northern Circle, to Dehra Dun. There also experiments were carried out as to the best way of pollarding Anjan (*Hardwickia binata*) instead of cutting it flush with the ground; minor experiments also were undertaken with the object of introducing *Grevillea*, *Casuarina* and *Eycallypti* into Toranmal in North Khandesh though nothing is yet known as to their success.

Mention has been made by the Conservator, Southern Circle, as to preliminary enquiries insituted about charcoal-making and wood distillation. The former industry has received some impetus from war conditions in Belgaum but no experiments were made scientifically by the department owing to over-work of staff and the impossibility of obtaining distillation plant. That, it is hoped, will now be remedied as wood-distillation would probably enable much waste produce to be utilized. The Forest Economist finished his seasoning experiments and published results after the end of the year. The *Terminalia tomentosa* (matti) sleepers supplied to the North-Western Railway seven years ago were reported upon favourably again. There will probably be a good demand for such in the future and there is plenty of material in Kanara and a certain amount in the Dangs available. Teak and Jamba wood-blocks for pavement were supplied in 1915 to the Bombay Municipality as an experiment and laid down in Frere Road before the gates of the Dock and are reported to be wearing well. A further supply of 1,10,000 were indented for during the year. All this means progress and utilization of much produce that was formerly wasted.

CHAPTER V.—ADMINISTRATION.

The Northern and Central Circles were held throughout the year by Messrs. Fisher and Napier respectively; the Southern Circle by Mr. Bell until November when he was appointed Chief Conservator of Forests of the Bombay Presidency and was replaced by Mr. Copleston. Sind was held by Mr. Duxbury until the 20th of December on which date he left for home on medial certificate, Mr. Newman, Divisional Forest Officer taking charge in addition to his own duties in Karachi division until relieved on the 22nd January 1918 by Mr. Thomson from Poona division who remained as Deputy Conservator in charge until the end of the year.

Much difficulty was experienced in many divisions from frequent change of officers owing to various men being away on military duty; Mr. Brooks departed on similar duty during the year. The staff of 26 Imperial officers (not counting the two appointments of the Government of India for Dehra Dun) was depleted by the absence of Messrs. Millet (on leave and military duty in England preparatory to retirement), Oliver (retired in June 1917), Mr. Duxubury (went on leave in December 1917), Mr. Hodgson (doing Munitions work until the 30th April 1917), Mr. Aitchison (on similar work from the 4th December 1917 until the end of the year), Messrs. Bourke, Inder, Sothers, Dalley (absent on military duty the whole time) and Milne who died on similar duty in Mesopotamia in November 1917. The staff of 26 men, already too small for the work in ordinary years, was reduced to 16 while the work to be done increased enormously. As a direct consequence of this four divisions in the Northern Circle had 15 officers in charge during the year and many make-shift arrangements had to be made to keep things going at all. After the appointment of the Chief Conservator, there were only 15 working officers left for Circles and divisions, so that many of the latter had to be placed under members of the provincial service who were not in all cases exactly what was wanted.

Four divisions and a sub-division in the Northern Circle, a similar number in the Central Circle and all the divisions in Sind and the Southern Circle were fortunate in having no changes of the kind except Belgaum and the Southern Division, Kanara, the former of which was deprived of the advantages of continuous administration for only two months, the latter for three (the only charge in the Presidency the occupant of was given leave). The Northern Circle was thus badly handicapped while the Southern Circle was lucky in being enabled to keep its permanent staff for the exceptionally heavy war-work it had to endeavour to carry out. There has been no recruitment, needless to say, to the Imperial service since the war began.

The sub-divisional charges did not suffer as recruitment was normal for the provincial service; some extensions had, however, to be given to members of that branch. Mr. Shrigley arrived back from foreign service in time to be of great help in the Western Division, Kanara, where there was much war-work to do and a new man arrived from Dehra Dun in April and was sent to the Northern Circle.

The ranger establishment is also weak but a fair number of new appointments were sanctioned during the year which, however, have not been filled up completely owing to the impossibility of getting men, the recruitments from Dehra Dun courses being too few and there being insufficient foresters able or literate enough for the places. Only 8 passed candidates arrived from Dehra Dun to fill 40 newly sanctioned appointments. Twelve were selected for training during the year but it will be two years before they arrived back from Dehra Dun.

The Forester is the mainstay of the executive work of the department and a considerable increase in the cadre is needed. The efficiency of the sylvicultural operations mainly depends upon them as well as the ultimate supervision of contractors and the actual measurement of timber, marking of trees and general working of protection. Complaints are general in all circles that the stamp of man obtainable under present pay conditions is not a good one and even, that it is impossible to get anybody at all fit for the responsible duties entailed. As one of the Divisional Forest Officers of the Northern Circle remarks—and it is, unfortunately, substantially true—"the only recruits obtainable are individuals who, through laziness or incompetence, are unable to earn a living elsewhere". The initial pay of a forester at present is Rs. 15 which is below what any cooly can earn for ordinary unskilled labour.

The Foresters' class was held in Poona for the Central Circle and 12 out of 14 men who were sent up obtained certificates; the classes in the Southern and Northern Circles were not run this year owing to the fact that there were no guards available fit for posts of the superior grade of forester; also, there was far too much work to be done for anyone of them to be spared even had they been worth promotion.

Subordinate establishment of guards was under strength in many cases because recruits could not be obtained; also, men left service often because they could get better pay as coolies elsewhere. The service is deteriorating as the highest pay Rs. 12 is not a living wage today.

The casualties were heavy as the following list will show:—

Deaths	.. ..	64
Dismissals	.. ..	71
Resignations	.. ..	148
Retirements	.. ..	42 or a total of 335 as compared to a total of casualties for last year of 325.

Punishments were:—

Degradations	.. ..	54
Supersessions	.. ..	26
Suspensions	.. ..	17
Fined	.. ..	600
Prosecutions	.. ..	10

All but 2 prosecutions were for misappropriation of money; one was for shikar, another for assault and theft.

The office establishments are all stated to have worked satisfactorily with additional work to do; complaints are general in the lower grades of the pay being insufficient. It will be necessary to reorganize the clerical staff at once because recruitment, as in the executive, is becoming impossible on present pay and prospects.

Favourable mention has been made of various officers by Conservators, of which the most outstanding are, omitting the upper controlling staff:—

Extra Assistant Conservators.—*Northern Circle:* Mr. N. C. Ramchandani in Surat (probationary); *Central Circle:* Mr. Sampson and Mr. Dangi in Kolaba (now dead); *Southern Circle:* Mr. Hemmadi and Mr. Shrigley in Northern Division and Western Division, Kanara; *Sind Circle:* all were in charge of divisions.

Rangers.—*Central Circle:* Mr. Gupchup for plantation work in Poona; *Southern Circle:* Messrs. Anantbhat and Nerlekar of the Western Division, Kanara, Hasabnis in the Northern Division, Kanara, Rege in Belgaum; *Sind Circle:* Mr. Rodrigues.

All Divisional Forest Officers are said to have worked well with the solitary exception of Mr. Gustasp of the Imperial branch in Sind.

Land Revenue Administration.

In Kanara, Dharwar and Belgaum of the Southern Circle and in North Khandesh of the Central Circle, certain portions of Haliyal, Yellapur, Dharwar and Khanapur talukas, the Supa and Mundgod pethas and the Akrani have been put as forest mahals under Divisional Forest Officers as Assistant Collectors. The administration of these units is reported as having been quite satisfactory everywhere by the Conservators and the Collectors concerned; the Mundgod (Eastern Division, Kanara), Dharwar and Haliyal (both under the Northern Division, Kanara), Belgaum and Akrani were administered by the Rangers as ex-officio Mahalkari's while Supa has a revenue officer as such placed under the orders of the Divisional Forest Officer. The working was so satisfactory from a forest point of view that it would be well to extend the system to such places as the jungle portions of North Thana and Peint and Talaseri of the Nasik district where the tribes (inhabitants) are jungle-folk living altogether in the jungle and living to a large extent upon jungle produce; the same may be said of the Northern portion of East Khandesh—the Satpura hills. The extra influence gained by the forest officer and the freedom from dual mangement in these mahals has resulted not only in closer attention being paid to the the welfare of the people but also in inducing them to undertake useful forest work at remunerative wage-rates instead of remaining a burden upon society at large, cutting down the jungle, cultivating little and badly, living from hand to mouth, half-starved, listless, lazy and apathetic. The amelioration of these people is slow and will be forcedly gradual but it is progressing to the benefit of themsleves as well as the Forest Department. Mr. Starte's administration of the Akrani is extremely favourably commented on by the Conservator; he has made the Forest Settlements in North Khandesh a complete success. These settlements are maintained and encouraged to supply labour necessary for forest works and protection from the fire. Similar settlements are required in East Khandesh but only slow progress is being made, partly from lack of any continuous, efficient control and partly, perhaps mainly, because the people available as settlers are of the wrong stamp—with an energetic and capable officer in charge, however, it is hoped that they may be made successful. Efforts were continued in Kanara mahals to induce people to settle in forest lands; the Revenue Department helping by reducing assessments in those under that department, but little was achieved. With lands to give, lands free from revenue rules and revenue restrictions, and a wider choice to offer, it is more than probable that people will eventually be induced to take them up and stay as permanent cultivators, giving their spare time to labour in the forests. The process of peopling old deserted villages and new lands must be gradual but with inducements offered, it is bound to succeed in the course of years. Inducements of free cultivation, access to wood for all agricultural requirements, free-grazing, one-man control, good quarters and personal attention are sufficient guarantee of this; the only objection is dual control which must entail difference of opinion and consequent neglect of the main thing that counts; i.e., personal interest and attention. One outstanding example of single control in forest matters, untrammelled and complete, is the case of the Dangs where a population of dacoits has by the unaided efforts of two successive forest officers been converted from criminals, lazy, lawless, drunken, into a quiet law-abiding, obedient, far less dissolute people, many of whom do good work in exploiting timber and working at sawmills. At the same time, a fire-swept forest country devoid of roads and cut off from civilization, bare of any sign of forest reproduction and gradually being denuded of a vast amount of extremely valuable teak, is now perfectly protected from fire, full of magnificient teak, tiwas, blackwood and honne young growth and provided with roads and tracks with a possibility of working out the damaged timber and protecting the good. Not to mention that the revenues accruing have risen to three lakhs of rupees from nothing in the last twenty years and will easily, in the next decade, amount to 10 lakhs. The people too, at the

present day, turn out willingly at the first alarm of fire and cases have been known in which they, of their own initiative, have beaten offenders who were caught red-handed. The magnificent results obtained in this case of the Dangs deserves to be far more widely known than it seemingly is at present.

CHAPTER VI.—GENERAL.

Special works that were carried out during the year were grass operations for military supply in West Khandesh in the Central Circle and the building of the forest railway in the Northern Division, Kanara. The former resulted in the supply of 10,000 tons of pressed bales, 91,057 in number, between the months of November and June, monopolizing most of the energies of the divisional staff for the whole season. The railway in Kanara had been suggested 8 years before but sanction thereto could not be obtained until His Excellency the Governor visited the district and became convinced of its desirability, the more immediate cause being the accelerated supply of large timber for Munitions. The war came to an abrupt end before the 19·5 miles were finished and, although the immediate cause for its inception thus ceased, it was finally opened for traffic at the end of the year and will be an invaluable asset to the department in helping to alleviate the labour problem and carting question which were becoming seroius. It will without doubt facilitate the better working of the forests sylviculturally and economically, rendering it possible to put upon the market species and material which hitherto have been unsaleable because of the cost of extraction and transport to depôt. Another work of great future utility was the part construction of a good metalled road in the Western Division, Kanara, from Kadra to Gund, which will ensure better working of the torests on the Gund plateau and along the Kalinadi valley in that such will not be confined to teak alone but will result in the extraction of blackwood and junglewood which have had to be left behind in the past as being unfloatable—the river has, so far, been the only channel of export fron Gund and the slopes on both sides of the river.

The Conservator, Southern Circle, has alluded to the difficulties that had to be faced in getting labour for the various operations carried out. The Berad settlement in Khanapur, Belgaum, is turning out a success. One other railway survey was carried out; another has been sanctioned in extension of the finished Dandeli-Alnavar line. The causeway over the Kalinadi at Dandeli was repaired, raised and strengthened, a special forest engineer was deputed on roads and building works. The Chief Conservator and two Divisional Forest Officers visited Coorg to find out how to catch wild elephants in pits by the kind invitation of Mr. Tireman, who is in charge of the forests there, and were shown how to carry out operations, besides seeing much of interest in methods of successful regeneration of teak and eradicating *Lantana* and propagating sandalwood. The forest of Ratnagiri were finally transferred to the management of the Revenue Department after prolonged enquiries extending over ten years.

In Sind there was great scarcity of fuel for home consumption, the immediate result of military requirements for Mesopotamia and Quetta and the prices assumed quite abnormal proportions. Mr. Thomson by tact and energy, however, succeeded in making satisfactory arrangements for local supply in the chief towns of Karachi, Hyderabad, Sukkur and Rohri, Larkana and Shikarpur where the shortage was most keenly felt.

His Excellency the Governor visited Kanara and, recognizing the value both present and prospective of the forest property that he inspected, was so convinced of the wisdom of development by putting money into it, that considerable strides have been made in many ways since, directly due to that visit. The increased revenues are a direct proof of the wisdom.

The remarks of the different Collectors of districts are quoted in the Conservators' reports. In several cases they evince some misconception of forest resources and the difficulties that have to be overcome by the department. In Belgaum, for example, the main reason for the continuance of annual incendiarism is want of stringency in suppressing it and not want of rewards for occasional help rendered. In Kanara the Collector still is convinced that the sole and only reason for land going out of cultivation is the pressure of forests, although forests have not

increased by even hundreds of acres during the last 30 years. He is ignorant of what has happened in such districts as Khandesh in the Satpuras, in Mokhada and North Thana in Thana district, Peint in Nasik, the south of Dharwar and the frontier parts of the same district lately transferred to the Kanara forest divisions—to mention only examples in the Bombay Presidency.

T. R. D. BELL,
Chief Conservator of Forests,
Bombay Presidency.

APPENDICES

FORM No. 7.—*Area of Reserved Forest, 1917-1918.*

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.										
Panch Mahals ...	Panch Mahals.	Reserved ...	212,152	331 312	...	...	212,152	331 312	.....	* Charges due to rectification of mistakes found out on comparison of forest and Settlement Registers. † Transferred from Division to Division..
Surat ...	Surat ...	Do. ...	51,791	80 591	...	...	51,791	80 591	.....	
Dángs (leased) ...	Dángs ...	Do. ...	211,795	330 595	...	...	211,795	330 595	.....	
North Thána ...	Thána ...	Do. ...	203,206	325 206	*25 †12,931	...	221,162	345 362	.....	
West Thána ...	Do. ...	Do. ...	197,792	309 32	...	*14 †12,931	184,847	288 527	.....	
East Thána ...	Do. ...	Do. ...	294,530	460 130	...	(b) 1,000 (b) 35	293,495	458 375	(b) 9585 8-8-1917, (b) 12457 16-10-1917.	
South Násik ...	Násik ...	Do. ...	221,561	346 121	*3,022 (a) 3	...	224,586	350 936	(a) 11527 25-9-1917.	
North Násik ...	Do. ...	Do. ...	332,005	518 435	...	75	331,930	518 410	10521 26-8-1917, 10701 4-9-1917, 11534A 25-9-1917. 15182A 11-11-1917. 6300A 7-6-1918.	
Násik Sub-Division.	Do. ...	Do. ...	189,562	296 142	...	3	189,579	296 130	11740 15-9-1917, 1694 21-2-1918,	
Ahmedabad ...	Ahmedabad	Do. ...	12,032	18 512	...	...	12,032	18 512	.....	
		Total, Northern Circle,	1,931,446	3,017 566	3,050 †12,931	1,127 †12,931	1,933,369	3,020 569		
CENTRAL CIRCLE.										
East Khándesh ...	East Khándesh.	Reserved ...	511,884	799 524	...	...	511,884	799 524	.....	
West Khándesh ...	West Khándesh.	Do. ...	494,878	773 158	...	*32	494,846	773 126	5279A * 3-5-1918, 13707 13-11-1917. 12354 6-11-1917.	
North Khándesh...	North Khándesh.	Do. ...	556,196	869 36	...	...	556,196	869 36	.....	
Poona and Ahmednagar.	Poona and Ahmednagar.	Do. ...	646,627	1,010 227	*221	§ 625	646,223	1,009 463	7337 *15-6-1917, 1415 12-2-1918, 2093 1-3-1918 6613 23-5-1917, 9584 8-8-1917, 2175 4-3-1918, 2176 of 4-3-1918. 5336 30-4-1917, 10522 29-8-1917, 10183 §21-8-1917, 13846 17-11-1917, 4119 4-4-1918, 53 3-1-1918, 11708 1-10-1917, 2223 5-3-1918, 13845 17-11-1917, 7190 12-6-1917, 1966 28-2-1918,	

FORM No. 7.—*Area of Reserved Forest, 1917-1918*—continued.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
CENTRAL CIRCLE—*contd.*										
Sátára ...	Sátára ...	Reserved ...	454,440	710 40	...	*54	454,386	709 626	*486 / 16-1-1918, 5771 / 17-5-1918, 4121 / 4-4-1918.	
	Do. ...	Leased ...	232	0 232	...	...	232	0 232		
Kolába ...	Kolába ...	Reserved ...	287,003	449 543	...	*59	287,844	449 484	*9036 / 24-7-1917, 5478-A / 9-5-1918, 7090 / 11-6-1917,	
Ahmednagar and Sholápur.	Ahmednagar and Sholápur.	Do. ...	449,041	701 401	...	‡1,117	447,924	699 564	‡12159 / 9-10-1917, 12381 / 15-10-1917, 8324 / 10-7-1917, 4023 / 4-4-1918, 15614 / 29-12-1917, 4122 / 4-4-1918.	
		Total, Central Circle.	3,401,201	5,314 241	221	1,887	3,399,535	5,311 495		
SOUTHERN CIRCLE.										
Kánara, N. D. ...	Kánara and Dhárwár.	Reserved ...	272,795	426 145	(*a*) 118	...	272,903	426 283	(*a*) 6615 / 29-5-1917, 7089 / 11-6-1917, 7189 / 12 6-1917, 8061 / 3-7-1917. 14001 / 21-11-1917, 1419 / 12-2-1918.	
Kánara, E. D. ...	Do. ...	Do. ...	375,843	587 163	(*b*) 266 (*c*) 338 (*d*) 1,255	(*e*) 12	377,665	590 65	(*b*) 6516 / 29-5-1917, 10182 / 21-8-1917, 11373 / 21-9-1917, 15591 / 29-12-1917, 937 / 30-1-1918. (*c*) 10076 / 20-8-1917, 1927 / 8-9-1917, 11088 / 14-9-1917, 620 / 22-1-1918. 1041 / 31-1-1918.	
Kánara, C. D. ...	Kánara ...	Do. ...	500,032	782 452	(*d*) 2	(*e*) 31	500,903	782 423	(*d*) 5338 / 30-4-1917, 7338 / 18-6-1917, (*e*) 7792 / 27-6-1917, 9369 / 1-8-1917, 9586 / 8-8-1917, 10075 / 20-8-1917. 15617 / 29-12-1917.	
Kánara, S. D. ...	Do. ...	Do. ...	411,020	642 140	...	(*f*) 98	410,922	642 42	(*f*) 11248 / 18-9-1917, 13350 / 6-11-1917,	

FORM No. 7.—*Area of Reserved Forest, 1917-1918*—concluded.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of addit on or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*contd.*										
Kánara, W. D. ...	Kánara ...	Reserved ...	521,370	814 410	(*g*) 100	(*k*)1333	521,137	814 177	(*g*) 13001 30-10-1917, Rectification of error.	(*k*) Area! transferred from W. D., Kanara to E. D., Kanara. (*l*) Area transferred from Dhárwár Bijapur to E. D., Kánára.
Belgaum ...	Belgaum ...	Do. ...	436,475	681 635	(*h*) 118	...	436,593	682 113	(*h*) 12351 13-10-1917, 13599 10-11-1917, 484 16-1-1918,	(*m*) Rectification of error. (*o*) As per Government Order, Revenue Department, No. 5205, dated 30th April 1918, the Forests were transferred to the Revenue Department for management, the Division being abolished from 1st July 1918.
Dhárwár and Bijápur.	Dhárwár and Bijápur	Do. ...	317,354	495 554	(*i*) 36	(*i*) 123 (*l*) 1,235 (*m*) 6	316,026	493 506	(*i*) 11526 25-9-1917, 5043 23-4-1918, (*j*) 9811-A 14-8-1917, 12160 9-10-1917, 14649 4-12-1917, 13706 13-11-1917, 486 16-1-1918 2230 5-3-1918, 5748 16-5-1918.	
Ratnágiri ...	Ratnágiri...	Do. ...	12,054	18 534	...	(*n*) 3	12,051	(*o*) 18 531	(*n*) 5478—A 9-5-1918.	
		Total, Southern Circle.	2,847,333	4,449 473	540 *100 †1,568	267 *6 ‡1,568	2,848,200	4,450 200		*Rectification of errors. †Transferred from Division to Division.
SIND CIRCLE.										
Sukkur ...	Sukkur and Upper Sind Frontier.	Reserved ...	208,422	325 422	*3,570	‡2,134	209,858	327 578		*Gained by action of the river.
Shikárpur ...	Sukkur and Upper Sind Fronter.	Do. ...	117,437	183 317	*280	‡1,073	116,644	182 164		‡Lost by action of the river.
Lárkána ...	Lárkána Nawábshah.	Do. ...	115,512	180 312	*340	‡3,761	112,091	175 91		
Hyderabad ...	Hyderabad Karáchi and Nawábshah.	Do. ...	165,035	257 555	†89 *195	‡5,066	160,253	250 253	† Government Resolution No. 10184 of 21st August 1917.	
Karáchi ...	Hyderabad and Karáchi	Do. ...	144,542	225 542	*1,746	‡3,346	142,942	223 222		
		Total, Sind Circle.	750,948	1,173 228	†89 *6,131	‡15,380	741,788	1,159 28		
		GRAND TOTAL ...	3,931,428	13,955 228	24,630	33,166	8,922,892	13,942 12		

FORM No. 7-A.—*Area of Protected Forest, 1917-1918.*

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of additio or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.										
Surat ...	(Dángs leased).	Protected ...	208,013	325 13	...	...	208,013	325 13		
North Thána ...	Thána ...	Do. ...	92,905	145 105	†2,752	*127 (*a*) 11	95,519	149 159	(*a*) 10087 20-8-1917, (*a*) 8380 10-7-1917, (*a*) 9820 14-8-1917. 2465 12-3-1918, 6087 30-5-1918,	*Changes due to rectification of mistakes found out on comparison of Forest and Settlement Registers. †Transferred from Division to Division.
West Thána ...	Do. ...	Do. ...	67,725	105 525	...	*338 (*a*) 4 †2,752	64,631	100 631		
East Thána ...	Do. ...	Do. ...	90,786	141 546	...	(*a*) 1	90,785	141 545		
South Násik ...	Násik ...	Do. ...	61,184	95 384	*217	...	61,401	95 601		
		Total, Northern Circle.	520,613	813 293	217 †2,752	481 †2,752	520,349	813 29		
CENTRAL CIRCLE.										
Sátára	Sátára ...	Protected ...	658	1 18	...	...	658	1 18		
Poona	Ahmednagar.	Do. ...	7,139	11 99	...	...	7,139	11 99		
Kolába	Kolába ...	Do. ...	47,241	73 521	...	*5	47,236	73 516	*11090 14-9-1917, 5210 30-4-1918. 623 22-1-1918,	
		Total, Central Circle.	55,038	85 638	...	5	55,033	85 633		
SOUTHERN CIRCLE.										
Kánara, N. D. ...	Kánara and Dhárwár.	Protected Forest.	58	0 5	...	...	58	0 58		
Kánara, E.D. ...	Do. ...	Do. ...	1,709	2 429	...	...	1,709	2 429		
Kánara, C. D. ...	Kánara ...	Do. ...	32,564	50 564	...	...	32,564	50 564		
Kánara, S. D. ...	Do. ...	Do. ...	42,035	65 435	...	...	42,035	65 435		
Kánara, W. D. ...	Do. ...	Do. ...	9,028	14 68	...	...	9,028	14 68		
Belgaum	Belgaum ...	Do. ...	12	0 12	...	...	12	0 12		
		Total, Southern Circle.	85,406	133 286	...	...	85,406	133 286		
SIND CIRCLE.										
Shikarpur... ...	Upper Sind Frontier.	Dickenson ...	585	0 585	...	...	585	0 585	Transferred from Sukkur Division, *vide* Government Resolution, No. 9555, dated 7th August 1917.	
		Total, Sind Circle.	585	0 585	...	...	585	0 585		
		GRAND TOTAL...	661,64	1,033 522	2,969	3,238	661,373	1,033 253		

FORM No. 7-B.—*Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1917-1918.*

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.										
Panch Mahál's ...	Panch Mahals.	Reserved ...	212,152	331 312	...	...	212,152	331 312		
Surat ...	Surat ...	Reserved and Protected.	463,507	724 147	...	...	463,507	724 147		
North Thána ...	Thána ...	Do. ...	208,206	325 206	25 *13,318	...	221,549	346 109	*Vide* Forms Nos. 7 and 7A.	
West Thána ...	Do. ...	Do. ...	205,974	321 534	...	14 *13,308	192,652	301 12		*Transferred from Division to Division.
East Thána ..	Do. ...	Reserved ...	294,530	460 130	...	1,035 †273	293,222	458 202	*Vide* Form No. 7.	
South Násik ...	Násik ...	Do. ...	217,860	340 260	3,025	...	220,885	345 85		† 10 acres were transferred to North Thána Division and 263 acres in the East Thána Division were transferred to the management of the Revenue Department, *vide* Form No. 7C.
North Násik ...	Do. ...	Do. ...	316,214	494 54	...	48	316,166	494 6		
Násik Sub-Division.	Do. ...	Do. ...	165,133	258 13	...	3	165,130	258 10		
		Total, Northern Circle.	2,083,576	3,255 376	3,050 *13,318	1,100 *13,308 †273	2,085,263	3,258 243		
CENTRAL CIRCLE.										
East Khándesh...	East Khándesh.	Reserved ...	488,629	763 309	...	...	488,629	763 309		
West Khándesh.	West Khándesh.	Do. ...	381,611	596 171	...	‡32	381,579	596 139	‡ Nos. of notifications as per Form No. 7.	
North Khándesh.	North Khándesh.	Do. ...	556,196	869 36	...	...	556,196	869 36		
Poona ...	Poona and Ahmednagar.	Reserved and Protected.	361,804	565 204	‡221	‡341	361,684	565 84		
Sátára ..	Sátára ...	Do. ...	330,490	516 250	...	‡2	330,488	516 248		
Kolába ...	Kolába ...	Reserved ...	269,327	420 527	...	‡59	269,268	420 468		
SOUTHERN CIRCLE.		Total, Central Circle.	2,388,057	3,731 217	221	434	2,387,844	3,731 4		
Kánara, N. D....	Kánara and Dhárwár.	Reserved and Protected.	272,843	426 203	118	...	272,961	426 321	*Vide* Form No. 7.	
Kánara, E. D....	Do. ...	Do. ...	375,223	586 183	266 §333 §1,235.	12	377,045	589 85		§ Areas transferred from Division to Division.
Kánara, C. D. ...	Kánara ...	Do. ...	533,496	833 376	2	31	533,467	833 347		(*a*) Area transferred from the management of the Revenue Department to that of the Forest Department as per Government Order, Revenue Department, No. 9066 of 25th July 1917.
Kánara, S. D. ...	Do. ...	Do. ...	453,055	707 575	...	98	452,957	707 477		(*b*) Do. No. 2678 of 18th March 1918.
Kánara, W. D....	Do. ...	Do. ...	530,398	828 478	100	§333	530,165	828 245		(*c*) Do. under Collector of Bijapur's Nos. 9236 of 6th August 1917 and C-909 of 27th May 1918.
Belgaum ...	Belgaum ...	Do. ...	407,138	636 96	118 (*a*) 27,672	...	434,928	679 368		(*d*) Area transferred to the Revenue Department, the Division being abolished from 1st July 1918.
Dhárwár and Bijápur.	Dhárwár and Bijápur.	Reserved ...	185,712	290 42	36 (*b*) 29,880 (*c*) 5,050	129 §1,235	219,314	342 434		
Ratnágiri ...	Ratnágiri ...	Do. ...	12,054	18 534	...	3	12,051	(*d*)18 531		
		Total, Southern Circle.	2,769,919	4,327 639	640 §1,568 62,602	273 §1,568	2,832,888	4,426 248		

FORM No. 7-B.—*Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1917-1918*—continued.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notiification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
SIND CIRCLE.			Acres.	Sq.m, a.	Acres.	Acres.	Acres.	Sq.m. a.		
Sukkur ...	Sukkur and Upper Sind Frontier.	Reserved ...	208,422	325 422	+3,570	-2,134	209,858	327 578	As per Form No. 7.	
Shikárpur ...	Do. ...	Reserved and Protected.	118,022	184 262	280	1,073	117,229	183 109		
Lárkána ...	Lárkána and Nawábsháh.	Reserved ...	115,512	180 312	+340	-3,761	112,091	175 91		
Hyderabad ...	Hyderabad, Karáchi and Nawábsháh.	Do. ...	165,035	257 555	+284	-5,066	160,253	250 253		
Karáchi ...	Hyderabad and Karáchi.	Do. ...	144,518	225 518	+1,746	-3,346	142,918	223 198		
		Total, Sind Circle.	751,509	1,174 149	+6,220	-15,380	742,349	1,159 589		
		GRAND TOTAL ...	7,993,061	12,489 101	87,619	32,336	8,048,344	12,575 344		

FORM No. 7-C.—*Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department for 1917-1918.*

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1917.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1918.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.			Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Sur ...	Surat ...	Reserved ...	8,092	12 412	...	...	8,092	12 412		
North Thána ...	Thána ...	Protected ...	92,905	145 105	*2,366	138	95,133	148 413	*Vide* Form No. 7A.	
West Thána ...	Do. ...	Do. ...	59,543	93 23	...	342 *2,376	56,825	88 505		*Transferred from Division to Division.
East Thána ...	Do. ...	Do. ...	90,786	141 546	†273	‡	91,058	142 178	*Vide Form No. 7.	
South Násik ...	Násik ...	Do. ...	64,885	101 245	217	...	65,102	101 462		†10 acres transferred from West Thana Division and 263 acres in the East Thana Division were transferred from the management of the Forest Department.
North Násik ..	Do. ...	Reserved ...	15,791	24 431	...	27	15,764	24 404		
Násik Sub-division.	Do. ...	Do. ...	24,449	38 129	...	...	24,449	38 129		
Ahmedabad ...	Ahmedabad.	Do. ...	12,032	18 512	...	...	12,032	18 512	*Vide* Form No. 7B.	
CENTRAL CIRCLE.		Total, Northern Circle.	368,483	575 483	217 *2,366 †273	508 *2,376	368,455	575 455		
East Khándesh ...	East Khándesh.	Reserved ...	23,255	36 215	...	...	23,255	36 215		
West Khándesh ...	West Khándesh.	Do. ...	113,267	176 627	...	...	113,267	176 627		
North Khándesh .	.....	.....	.....	...	...	...	.....	...		
Poona ...	Poona ...	Reserved ...	291,962	456 122	...	‡283	291,679	455 479	‡As per Form No. 7.	
Sátára ...	Sátára ...	Do. ...	124,840	195 40	...	‡52	124,788	194 628		
Kolába ...	Kolába ...	Reserved and Protected.	65,817	102 537	...	‡5	65,812	102 532		
Nagar and Sholápur.	Nagar and Sholápur.	Reserved ...	449,041	701 401	...	‡1,118	447,923	699 563		
SOUTHERN CIRCLE.		Total, Central Circle.	1,068,182	1,669 22	...	1,458	1,066,724	1,666 484		
Kánara, E. D. ...	Kánara and Dhárwár.	Reserved ...	2,329	3 409	...	..	2,329	3 409		
Belgaum ...	Belgaum ...	Do. ...	29,349	45 549	...	(*a*)27,672	1,677	2 397		(*a*) Area transferred to the management of the Forest Department as per Government Order, Revenue Department, No. 9066, dated 25th July 1917.
Dhárwár and Bijápur.	Dhárwár and Bijápur.	Do. ...	131,642	205 442	...	(*b*) 29,880 (*c*) 5,050	96,712	151 72		(*b*) Do. No. 2678 of 18th March 1918. (*c*) As per Collector of Bijapur's No. 9936, dated 6th August 1917, and No. C-909, dated 27th May 1918.
SIND CIRCLE.		Total, Southern Circle.	163,320	255 120	...	62,602	100,718	157 238		
Karáchi ...	Karáchi ...	Malvi ... (Reserved.)	24	0 24	...	...	24	0 24		
		Total, Sind Circle.	24	0 24	...	...	24	0 24		
		GRAND TOTAL.	1,600,009	2,500 9	2,856	66,944	1,535,921	2,399,561		

ABSTRACT OF FORMS NOS. 7, 7-A,

Division.	In charge of the Forest Department.				
	Reserved Forest.			Protected Forest.	
	Forest proper.	Pasture reserves.	Fuel and fodder reserves.	Forest proper.	Pasture reserves.
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.
Panch Mahals ...	331 312	.....	...	...	.....
Surat ...	399 134	.....	...	325 13	.....
North Thána ...	343 312	.....	2 50	0 386	.....
West Thána ...	288 527	.....	...	12 125	.....
East Thána ...	458 102	.....	...	...	.....
South Násik ...	344 95	.....	0 630	...	.....
North Násik ...	494 6	.....	...	...	.....
Násik Sub-Division ...	256 169	.....	1 481	...	.....
Ahmedabad ...	.....	.....	...	...	.....
Total ...	2,915 377	.....	4 521	337 524	.....
CENTRAL CIRCLE.					
East Khándesh ...	763 309	.....	...	...	.....
West Khándesh ...	465 112	.....	131 27	...	.....
North Khándesh ...	869 36	.....	...	...	.....
Poona ...	553 625	.....	...	11 99	.....
Sátára ...	515 230	.....	...	1 18	.....
Kolába ...	417 19	.....	3 449	...	.....
Ahmednagar and Sholápur ...	.....	.....	...	...	.....
Total ...	3,584 51	.....	134 476	12 117	.....
SOUTHERN CIRCLE.					
Kánara, Northern ...	424 304	1 576	0 23	0 58	.....
Kánara, Eastern ...	479 333	106 603	...	...	2 429
Kánara, Central ...	682 485	99 578	...	...	50 564
Kánara, Southern ...	385 490	256 192	...	65 435	.....
Kánara, Western ...	752 622	61 195	...	...	14 68
Belgaum ...	629 204	50 152	...	0 12	.....
Dhárwár and Bijápur ...	316 219	14 241	11 614	...	.....
Ratnágiri ...	13 531	.....	5 0	...	.....
Total ...	3,684 628	590 617	16 637	65 505	67 421
SIND CIRCLE.					
Sukkur ...	327 578	.....	...	0 585	.....
Shikárpur ...	182 164	.....	...	...	.....
Lárkána ...	175 91	.....	...	...	.....
Hyderabad ...	250 253	.....	...	...	.....
Karáchi ...	223 198	.....	...	...	.....
Total ...	1,159 4	.....	...	0 585	.....
GRAND TOTAL ...	11,343 420	590 617	156 354	416 451	67 421

7-B *and* 7-C *for 1917-18.*

In charge of the Revenue Department.				Total Forest Area.	Remarks.
Reserved Forest.			Protected Forest.		
Forest proper.	Pasture reserves.	Fuel and fodder reserves.	Pasture reserves.		
Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
...	.....	...	...	331 312	
...	3 53	9 359	...	736 559	
...	.....	...	148 413	494 521	
...	.....	...	88 506	389 518	
0 273	.....	...	141 545	600 280	
...	4 212	1 289	95 601	446 547	
...	24 404	...	...	518 410	
...	38 129	...	...	296 139	
...	.....	18 512	...	18 512	
0 273	70 158	29 520	475 145	3,833 598	
...	36 215	...	...	799 524	
...	176 627	...	...	773 126	
...	.....	...	...	869 36	
...	455 479	...	...	1,020 563	
...	189 333	5 295	...	711 236	
...	29 16	...	73 516	523 360	
...	699 563	...	...	699 563	
...	1,587 313	5 295	73 516	5,397 488	
...	.....	...	...	426 321	
...	3 409	...	...	592 494	
...	.....	...	...	833 347	
...	.....	...	...	707 477	
...	.....	...	...	828 245	
1 0	.....	1 397	...	682 125	
...	151 72	...	...	493 506	
...	.....	...	...	18 531	
1 0	154 481	1 397	...	4,583 486	
...	.....	...	...	327 578	
...	.....	...	...	183 109	
...	.....	...	...	175 91	
...	.....	...	...	250 253	
...	0 24	...	...	223 222	
...	0 24	...	...	1,159 613	
1 273	1,812 336	36 572	549 21	14,975 265	

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
NORTHERN CIRCLE.					
Reserved Forest.					
South Násik ...	Násik	Dewargaon Talwade...	$\frac{3}{640}$	.....	.....
		Aghar kd. ...	.....	.....	$\frac{12}{640}$
North Násik ...	Do.	Jamshet ...	.....	.....	$\frac{6}{640}$
		Jamboti ...	.....	.....	$\frac{34}{640}$
Násik Sub-Division ...	Do.	Sinnar ...	.....	.....	$\frac{18}{640}$
Protected forest ...	Do.	.....	.....	.....	.....
	Total, Northern Circle.	.....	$\frac{3}{640}$	.....	$\frac{70}{640}$

Settlements during the year 1917-1918.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....	11527	25th Sept. 1917.	
.....	.....	.....	15024	11th Decr. 1917.	
.....	.....	.....	2343	8th March 1918.	
.....	.....	.....	5162	29th April 1918.	
.....	.....	.....	9376	1st August 1917.	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
CENTRAL CIRCLE.					
Reserved Forest.					
East Khándesh ...	East Khándesh ...	.....	.....	...	...
West Khándesh ...	West Khándesh ...	Pimple Umarvihir, etc., 20 villages, Naole, etc., 40 villages —Majwan.	.....	22 405/640	1 100/640 67/640 123/640
North Khándesh ...	Do. ...	.....	.....	...	...
Poona	Poona	Ghera Singhar Aglambe, Ditwi Pedgaon, Naygaon Deoghar, etc. 15 villages.	221/640	...	77/640
Sátára	Sátára	... ...	...	...	76/640
Kolába	Kolába	.....	...	...	...
	Total, Central Circle ...	.....	221/640	22 405/640	1 443/640

Settlements during the year 1917-1918—continued.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs. a. p.	Rs.	Rs.			
.....	.....	.....	.....	.....	
40 0 0	.....	.....	5146 12732	27th April 1918. 23rd October 1917.	
.....	.....	.....	.....	.....	
.....	.....	.....	6613 9584 5336 10522 7337 1415 2093 2176 2175 6469 2094 6273 7088	29th May 1917. 8th August 1917. 30th April 1917. 22nd August 1917. 15th June 1917. 12th February 1918. 1st March 1918. 4th March 1918. Do. 25th May 1917. 1st March 1918. 19th May 1917. 11th June 1917.	
.....	.....	.....	8596 9821	14th July 1917. Do.	
.....	.....	.....	.....	.....	
40 0 0	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest Settlements*

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
SOUTHERN CIRCLE.					
Reserved Forest.					
Kánara, Northern...	Kánara and Dhárwár ...	Reserved Forest ...	$\frac{118}{640}$	426	.....
Do. Eastern ...	Kánara and Dhárwár ...	Do. ...	$\frac{266}{640}$	587	.....
Do. Central ...	Kánara ...	Do. ...	$\frac{2}{640}$	783	.....
Do. Southern...	Kánara ...	Do. ...	.....	642	$\frac{5}{640}$
Do. Western ...	Kánara ...	Do. ...	$\frac{100}{640}$	815	.....
Belgaum	Belgaum ...	Do. ...	$\frac{118}{640}$	682	$1\frac{58}{640}$
Dhárwár and Bijápur.	Dhárwár and Bijápur ...	Do. ...	$\frac{36}{640}$	496	$\frac{60}{640}$
Ratnágiri	Ratnágiri ...	Do. ...	...	19	.....
	Total, Reserved Forest ...	.....	1	4,450	$1\frac{123}{640}$
Protected Forest.					
Kánara, Northern...	Kánara and Dhárwár ...	.....	.....	$\frac{58}{640}$	.....
Do. Eastern ...	Kánara and Dhárwár ...	.....	.....	3	.....
Do. Central ...	Kánara ...	.....	.....	51	.....
Do. Southern ...	Kánara ...	.....	.....	65	.....
Do. Western...	Kánara ...	.....	.....	14	.....
Belgaum	Belgaum ...	.....	.....	$\frac{12}{640}$	.....
	Total, Protected Forest ...	.....	.....	$133\frac{70}{640}$	.....
	Total, Southern Circle ...	.....	.....	$4{,}583\frac{70}{640}$	$1\frac{123}{640}$

during the year 1917-1918—continued.

Cost during year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement, Number and Date.		Remarks.
In Forest Accounts.	In other Accounts.				
7	8	9	10	11	12
Rs.	Rs.	Rs.			
1,000	...	...	6615 29-5-17 ; 7089 11-6-17 ; 7189 12-6-17 ;	8061 3-7-17 ; 14001 21-11-17 ; 1419 12-2-18 ;	
...	...	...	6616 29-5-17 ; 10182 21-8-17 ; 11373 21-9-17 ;	15591 29-12-17 ; 937 30-1-18 ;	
...	...	...	5338 30-4-17 ;	7338 18-6-17 ;	
89	...	...			
123	...	...	13001 30-10-17 ; (Mistake in area corrected.)		
2,158	...	...	12351 13-10-17 ; 13599 10-11-17 ;	484 16-1-18 ;	
...	...	...	11526 25-9-17 ;	5043 23-4-18 ;	
...	...	...			
3,370	...	...			
...	...	...			
...	...	...			
...	...	...			
...	...	...			
...	...	...			
...	...	...			
...	...	...			
3,370	...	...			

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES.		
			Finally settled during year.	In hand at commencement of year.	Taken in hand during year.
1	2	3	4	5	6
SIND CIRCLE.			Sq. m.	Sq. m.	Sq. m.
Sukkur	Sukkur Upper Sind ...	.....	...	.....	.....
Shikárpur ...	Shikarpur Upper Sind .	.....	...	.....	.....
Lárkána ...	Lárkána Upper Sind ...	.....	...	.....	.....
	Total ...	.....	...	.....	.....
Hyderabad ...	Hyderabad ...	Deh Rahu, Taluka Hala.	$\frac{17}{640}$	.....	.....
		Deh Kaka, Taluka Hala.	$\frac{72}{640}$		
	Karáchi ...	.....	...	.....	.....
	Nawábsháh. ...	.....	...	.....	.....
	Total ...	.....	$\frac{89}{640}$	.....	.....
Karáchi	Karáchi Nawábsháh ...	.....	...	.....	.....
	Total, Sind Circle ...	.....	$\frac{89}{640}$	.....	.....
	GRAND TOTAL ...	.....	1 $\frac{313}{640}$	4,605 $\frac{475}{640}$	2 $\frac{636}{640}$

Settlements during the year 1917-1918—concluded.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	46	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	46	.....	.....	
.....	.....	.....	.....	.....	
.....	.....	46	.....	.....	
.....	3,410	46	.....		

FORM No. 9.—*Record of Demarcation and Maintenance of Boundaries, 1917-1918.*

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Panch Mahâls ...	.....	959	.....	959	.....	101	1,060	.....	15 0 0	
Surat ...	.....	835	.....	835	.....	103	938	.....	94 0 0	
North Thâna ...	.....	930	.....	930	.....	35	965	.....	377 0 0	
West Thâna ...	.....	736	.....	736	.....	32	768	.....	202 0 0	
East Thâna ...	.....	1,393	.....	1,393	39	141	1,573	.....	108 0 0	
South Násik ...	.....	1,538	.....	1,538	63	194	1,795	.....	526 0 0	
North Násik ...	.....	1,245	.....	1,245	1	73	1,319	.....	99 0 0	
Násik Sub-Division .	.....	717	.....	717	.....	59	776	.....	84 0 0	
Total, Northern Circle ...	.....	8,353	.....	8,353	103	738	9,194	.....	1,505 0 0	
CENTRAL CIRCLE.										
East Khândesh ...	.....	2,183	.....	2,183	.....	107	2,290	.....	300 0 0	
West Khândesh ...	.....	843	.....	843	.....	67	910	.....	264 0 0	
North Khândesh ...	.....	309	.....	309	.....	52	361	*17 0 0	539 0 0	* Paid on account of arrear payment of the work done in the last year.
Poona ...	108	3,212	.....	3,320	16	451	3,787	521 0 0	806 0 0	
Sátára ...	.....	4,254	.....	4,254	.....	80	4,334	.....	611 0 0	
Kolâba ...	.....	1,989	.....	1,989	.....	72	2,061	*314 0 0	255 0 0	Do.
Total, Central Circle ...	108	12,790	.....	12,898	1	829	13,743	852 0 0	2,775 0 0	
SOUTHERN CIRCLE.										
Kânara, Northern .	.....	6	618	624	.....	14	638	.....	28 0 0	
Do. , Eastern	.....	.....	1,563	1,563	.....	31	1,594	.....	171 0 0	
Do. Central ...	.....	40	3,794	3,834	.....	108	3,942	.....	60 0 0	

FORM No. 9.—*Record of Demarcation and Maintenance of Boundaries, 1917-1918*—concluded.

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*concluded.*	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Kánara, Southern ...	13	.....	4,426	4,439	.....	100	4,539	660 0 0	.....	
Do. Western ...	2	36	1,800	1,838	22	152	2,012	109 0 0	127 0 0	
Belgaum	16	29	(*a*)1,881	(*a*)1,926	98	141	(*a*)2,165	510 0 0	396 0 0	(*a*) Includes 136 miles length of boundary of the Parasgad forests taken over from the Revenue Department during the year. (*b*) Includes 157 miles length of boundary of the Parasgad forests taken over from the Revenue Department during the year.
Dhárwár—Bijápur .	.....	627	(*b*)745	(*b*)1,372	8	32	(*b*)1,412	.....	40 0 0	
Ratnágiri	.....	.....	140	140	.....	70	210	.....	.....	
Total, Southern Circle	31	738	14,937	15,736	128	648	16,512	1,279 0 0	822 0 0	
SIND CIRCLE.										
Sukkur	3	643	.....	646	.....	124	770	.....	.....	
Shikarpur	1	397	.....	397	.....	57	454	.....	.....	
Lárkána	1	389	.....	391	.....	77	468	150 0 0	.....	
Hyderabad	2	350	.....	352	.....	181	533	.....	.....	
Karachi	0	251	.....	251	.....	229	480	.....	.....	
Total, Sind Circle ...	7	2,030	.....	2,037	.....	668	2,705	150 0 0	.....	
GRAND TOTAL ...	146	23,911	14,967	39,024	247	2,883	42,154	2,281 0 0	5,102 0 0	

FORM No. 10.—*Statement of Forest Areas Surveyed and*

AREAS SURVEYED AND UNDER SURVEY

Division.	SPECIAL SURVEYS—MAPS ON 4″ SCALE OR OVER, BY SURVEY OF INDIA DEPARTMENT OF FOREST SURVEY BRANCH.								ORDINARY, INCLUDED IN DISTRICT SURVEYS.							
	With Interior Details.					Boundary Surveys.			With Interior Details.					Boundary Surveys.		
	With details of Growing Stock.		Without details of Growing Stock.		Total cost.	Previous.	Of the year.	Total Cost.	With details of Growing Stock.		Without details of Growing Stock.		Total Cost.	Previous.	Of the year.	Total Cost.
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs. a. p.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.
Reserved Forest.																
Panch Mahâls																
Surat																
North Thána																
West Thána																
East Thána																
South Násik																
North Násik																
Nasik Sub-Division																
Ahmedabad																
Total																
Protected Forest.																
Surat																
North Thána																
West Thána																
East Thána																
South Násik																
Total																
Total, Northern Circle																
CENTRAL CIRCLE.																
Reserved Forest.																
East Khándesh			229													
West Khándesh			676													
North Khándesh			646													
Poona			525													
Sátára			530													
Kolába			450													
Nágar & Sholápur			737													
Total			3,793													
Protected Forest.																
Poona			11													
Sátára			1													
Kolába			74													
Total			86													
Total, Central Circle			3,879													
SOUTHERN CIRCLE.																
Kánara, Northern																
Do. Eastern																
Do. Central																
Do. Southern																
Do. Western																
Belgaum																
Dhárwár-Bijápur																
Ratnágiri																
Total, Southern Circle																
SIND CIRCLE.																
Sukkur																
Shikarpur																
Lárkána																
Hyderabad																
Karachi																
Total, Sind Circle																
GRAND TOTAL			3,879													

under Survey during the year 1917-1918.

DURING THE YEAR.								Areas remaining to be taken under Survey.	Total Forest area at end of the year as per Forms Nos. 7 & 7A.	COST.			Remarks.
CHAIN AND COMPASS OR OTHER SURVEYS BY LOCAL OFFICERS.													
With Interior Details.					Boundary Surveys.					Previous.	Of the year.	Entire cost of all Surveys to end of the year.	
4-inch or over.		Under 4-inch.		Total Cost.	Previous.	Of the year.	Total Cost.						
Previous.	Of the year.	Previous.	Of the year.										
18	19	20	21	22	23	24	25	26	27	28	29	30	31
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	...	...	...	...	...	...	...	...	332	.....	.....	.....	
...	...	...	...	...	...	...	...	...	412	.....	.....	.....	
...	...	...	...	...	...	...	...	...	345	.....	.....	.....	
...	...	...	...	...	...	...	...	...	289	.....	.....	.....	
...	...	...	...	...	...	...	...	...	458	.....	.....	.....	
...	...	...	...	...	...	...	...	...	351	.....	.....	.....	
...	...	...	...	...	...	...	...	...	519	.....	.....	.....	
...	...	...	...	...	...	...	...	...	296	.....	.....	.....	
...	...	...	...	...	...	...	...	...	19	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3,021	.....	.....	.....	
...	...	...	...	...	...	...	...	...	325	.....	.....	.....	
...	...	...	...	...	...	...	...	...	149	.....	.....	.....	
...	...	...	...	...	...	...	...	...	101	.....	.....	.....	
...	...	...	...	...	...	...	...	...	142	.....	.....	.....	
...	...	...	...	...	...	...	...	...	96	.....	.....	.....	
...	...	...	...	...	...	...	...	...	813	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3,834	.....	.....	.....	
...	...	...	...	...	...	...	...	37	800	24,094 0 0	.....	24,094 0 0	
...	...	...	...	...	...	...	...	...	773	63,694 0 0	.....	63,694 0 0	
...	...	...	...	...	...	...	...	223	869	1,371 0 0	.....	1,371 0 0	
...	...	...	...	...	...	...	...	494	1,010	1,11,290 0 0	.....	1,11,290 0 0	
...	...	...	...	...	...	...	...	181	710	62,569 0 0	.....	62,569 0 0	
...	...	...	...	...	...	...	...	...	450	*Nil*	.....	*Nil*	Not known
...	...	...	...	...	...	...	...	41	700	91,230 0 0	.....	91,230 0 0	
...	...	...	...	...	...	...	...	976	5,312	3,54,238 0 0 *7,085 0 0	.....	3,54,238 0 0 *7,085 0 0	
...	...	...	...	...	...	...	...	...	11	.....	.....	.....	
...	...	...	...	...	...	...	...	...	1	.....	.....	.....	
...	...	...	...	...	...	...	...	...	74	.....	.....	.....	
...	...	...	...	...	...	...	...	...	86	.....	.....	.....	
...	...	...	...	...	...	...	...	976	5,398	3,61,323 0 0	.....	3,61,323 0 0	
...	...	...	...	...	...	...	...	...	427				
...	...	...	...	...	...	...	...	...	593				
...	...	...	...	...	...	...	...	...	833	3,90,231 0 0	.....	3,90,231 0 0	
...	...	...	...	...	...	...	...	...	708				
...	...	...	...	...	...	...	...	...	828				
...	...	...	...	...	...	...	...	...	682	57,104 0 0	.....	57,104 0 0	
...	...	...	...	...	...	...	...	276	491	15,268 0 0	.....	15,268 0 0	
...	...	...	...	...	...	...	...	...	19	531 0 0	.....	531 0 0	
...	...	...	...	...	...	...	...	276	4,584	4,63,184 0 0	.....	4,63,184 0 0	
...	...	...	...	...	...	...	...	...	328	.....	.....	.....	
...	...	...	...	...	...	...	...	...	183	.....	.....	.....	
...	...	...	...	...	...	...	...	...	175	.....	.....	.....	
...	...	...	...	...	...	...	...	...	250	.....	.....	.....	
652	...	...	...	9,095	208	...	2,902	...	223	11,997 0 0	.....	11,997 0 0	
652	...	...	...	9,095	208	...	2,902	...	1,159	11,997 0 0	.....	11,997 0 0	
652	...	...	...	9,095	208	...	2,902	1,252	14,975	8,36,504 0 0	.....	8,36,504 0 0	

*Represents cost of arrear mapping and cannot conveniently be distributed amongst the several Divisions, including South and North Nasik.

FORM No. 11.—*Progress made in Working Plans, 1917-1918.*

Division.	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.			Total forest area in Form No. 7-B, column 9.	REVISIONS.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of year.	Added during year.	Deducted during year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised Plan sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Per ct.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
Panch Mahals ...	332	...	...	332	100	...	...	...	332	218	114	...	.....	
Surat ...	457	...	...	457	63·1	...	267	...	724	69	...	...	.....	
North Thána ...	325	20	...	345	100	...	1	...	346	...	346	...	.....	
West Thána ...	309	...	20	289	100	...	12	...	301	...	289	...	.....	
East Thána ...	459	...	1	458	100	...	...	...	458	64	374	...	.....	
South Násik ...	315	5	...	320	92·7	...	...	25	345	320	...	...	.....	
North Násik ...	400	...	...	400	80·9	...	...	94	494	400	...	...	.....	
Násik Sub-Division ...	179	...	...	179	69·3	...	...	79	258	179	...	...	.....	
Total, Northern Circle .	2,776	25	21	2,780	85·3	...	280	198	3,258*	1,270	1,123	...	.....	* This is exclusive of the area in charge of the Revenue Department.

FORM No. 11—*Progress made in Working Plans, 1917-1918*—concluded.

Division.	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.			Total forest area in Form No. 7-B., Column 9.	REVISIONS.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of year.	Revised plans sanctioned during year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CENTRAL CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
East Khándesh ...	749	...	...	749	98·2	...	...	15	764	...	*409	...	.....	* Chopda, Raver and Yawal forests.
West Khándesh ...	180	...	...	180	30·2	...	416†	...	596	50‡	...	...	.....	†Nawapur ... 96 Nandurbar part ... 55 151 Parts of Sakri ... } 265 Pimpalner ... } Nandurbar & Dhulia... } 416
North Khándesh ...	564	...	...	564	64·9	305¶	...	...	86·9	...	§564	...	.....	‡Devmogra Reserve. Sq. m. ¶Akrani ... 304 Shirpur (newly afforested area) ... 0·7 304·7 §Shirpur, Shahada and Taloda.
Kolába ...	416	3*	...	419	99·7	...	...	1	420	...	†33	...	.....	*Due to correction of area as shown below :— Not being taken into account in former years— Matheran working Plan area ... 1·7 Casuarina Plantation ... 0·2 Difference between working plan area and form No. 7-B. 1·6 3·5 †Matheran ... 1·7 Kolaba working plan ... 1·3 3·0
Poona ...	320	...	...	320	56·6	245	...	...	565	...	320	...	.....	
Sátára ...	64	...	...	64	12·4	97	355††	...	516	64	...	...	.....	††Evergreen forests of Mahabaleshwar part, Patan, Shirala, etc.
Total, Central Circle...	2,293	3	...	2,296	61·6	647	771	16	3,730	114	1,296	...	.....	
SOUTHERN CIRCLE.														
Kánara, Northern ...	350	...	...	350	82·0	42	...	35	427	107	107	...	.....	
Kánara, Eastern ...	277	...	...	277	46·7	78	...	238	589	157	157	...	.....	
Kánara, Central ...	278	...	...	278	33·3	1	104	450	833	...	26	...	.....	
Kánara, Southern ...	71	...	...	71	10·0	97	...	540	708	...	...	...	.....	
Kánara, Western ...	258	...	...	258	31·2	...	...	570	828	...	...	...	.....	
Belgaum ...	331	...	...	331	48·5	348	...	3	679	168	168	...	.....	
Dhárwár-Bijápur ...	...	...	...	...	...	232	103	159	343	...	...	...	.....	
Ratnágiri ...	...	...	...	...	...	...	...	19	19	...	...	...	.....	
Total, Southern Circle .	1,565	...	...	1,565	34·1	798	207	2,014	4,426	432	458	...	.....	
SIND CIRCLE.														
Sukkur ...	...	...	...	300	91·0	...	13	−14	328	328	...	...	.....	
Shikarpur ...	622	1	...	170	92·0	...	13	...	183	183	...	...	.....	
Lárkána ...	...	...	...	153	87·0	...	4	18	175	175	...	...	.....	
Hyderabad ...	225	11	...	236	94·0	...	1	14	251	...	...	...	.....	
Kárachi ...	226	2	...	228	100·0	...	...	...	223	...	...	...	.....	Difference due to erosion.
Total, Sind Circle ...	1,073	14	...	1,087	93·7	...	31	46	1,160	686	...	...	.....	
GRAND TOTAL ...	7,707	42	21	7,728	61·5	1·445	1,289	2,274	12,574	2,502	2,877	...	.....	

ACCOMPANIMENT TO FORM No. 11—

Division.	Name of Working Plan.	Year in which sanctioned.	Area up to date.		Estimated annual output (cubic		
			To be worked.	Actually worked.	Teak.	Junglewood.	Fuel.
1	2	3	4	5	6	7	8
			Acres.	Acres.	C.ft.	C.ft.	C.ft.
Kánara, Northern	Supa High Forest Plan, Blocks I to VII ...	1895	2,420	1,595	96	85	.....
	Bhagwati Plan, Blocks VIII, IX and XX ...	1916	1,765	1,765	73	19	.....
	Haliyál Teak Pole Plan	1904	836	898	No estimate given.		.....
	Plan for Block VII-A	1915	198	198	Coupes to be cut to		
	Dhárwár Plan	1900	518	519	.....	.....	.....
	Kalghatgi Plan (submitted for sanction) ...	1918	583	417	.....	.....	.....
Do. Eastern	Yellápur Slopes Plan	1905	1,720	1,720	23	.....	.....
	Yellápur Aboveghat Plan	1905	76,537	64,189	39	.....	.....
	Mundgod High Forest Plan	1908	21,777	14,732	21	.....	.....
	Mundgod Teak Pole Area Plan	1909	7,663	7,663	16	.....	188
	Kirvatti Teak Pole Plan	1916	456 Coupes	456	Not estimated.		.....
			1,336 Improvement fellings.				
Do. Central	Ankola High Forest Plan	1910	12,562	11,658	.....	62	.....
	Ankola-Kumta Coast Fuel Plan	1912	4,294	3,356	.....	49	336
	Sirsi Fuel Plan	1914	696	128	Not estimated.		.....
	Yekambi-Sonda High Forest Plan ...	1915	5,397	4,463	.....	80	.....
	Arbail Slopes Plan (submitted for sanction) .	.....	.....	.....	.....	.....	.....
Do. Southern	Honáwar Tali Palm Plan	1909	9,059	9,059	.....	.....	.....
	Kasarkod Casuarina Plantation	1911	70	52	.....	.....	.....
	Soppin-hosalli High Forest Plan ...	1913	3,615	2,484	6	137	.....
	Chandawar Fuel Plan	1915	740	740	.....	.....	200
Do. Western	Gund Plan	1896	25,501	9,652	63	4	.....
	Kalinadi Slopes Plan	1911	5,741	(a)5,173	4	55	.....
	Supa Fuel Plan	1906	10,638	4,924	Not estimated.		.....
	Kárwár Fuel Plan	1903	14,124	(b)10,904	.....	.....	1,250
	Casuarina Plantation	1911	55	(c)55	.....	.....	25
	Teak Plantation Plan	1910	713	(d)712	Not estimated.		.....
Belgaum	Galihalli-Godoli Plan	1900	4,102	4,102	Not estimated.		.....
	Khánápur Fuel Reserves Plan	1903	36,026	31,661	.....	.....	2,985
	Varkhad Hemadge Plan	1906	1,398	1,318	Not estimated.		150
	Nagargali Plan	1915	1,034	1,034	Not estimated.		.....
	Gokák Fuel Plan	1916	20,491	20,491	.....	.....	844
Dhárwár-Bijápur	Bankápur-Hangal Plan (submitted for sanction).	.....	.....	.....	.....	.....	.....
Ratnágiri	None	.....	.....	.....	.....	.....	.....

(a) Includes 598 acres worked for war supplies outside working plan prescriptions.
(b) Do. 578 do. do.

Belgaum,
28th September 1918.

Control of Working Plans, Southern Circle, 1917-18.

feet in thousands).			Actual output for 1917-18 (cubic feet in thousands).						Brief statement of reasons for arrears.
Other produce.	Gross value.	Net profit.	Teak.	Jungle-wood.	Fuel.	Other produce.	Gross value.	Net profit.	
9	10	11	12	13	14	15	16	17	18
Value Rs (in thousands). 24	Rs. in thousands. 540	Rs. in thousands. 252	C.ft. 98	C.ft. 47	C.ft. ...	Value Rs. (in thousands)	Rs. in thousands. 579	Rs. in thousands. 331	Want of labour.
.....	98	50	42	80	5	.....	59		
.....	.....	.....	137	109	286	.....	112		
meet dem	and.	.....	28	4	7	.....	16	265	
.....	27	27	43	26	185	.....	38		
.....	.....	.....	14	21	101	.....	13		
.....	34	17	53	4	...	.....	131	92	
.....	38	30	50	50	...	.....	150	102	Want of labour.
.....	33	24	39	8	...	.....	79	49	Do.
.....	11	11	106	...	80	.....	17	17	
.....	.....	20	93 ...	... ...	20 ...	....	22	19	
.....	25	13	4	50	...	.....	89	65	Difficulty of labour and exploitation.
.....	20	2	...	62	499	.....	5	5	Difficulty of labour.
.....	1	1	...	2	90	.....	.....	4	Do.
.....	64	16	1	30	...	.....	51	33	Do.
.....	.....	.....	...	...	...	.....	.....	.....	
1,481 Palm trees.	.....	2	...	...	...	1,135 Palm trees.	.....	5	
.....	.....	2	...	...	...	.....	.....	.....	Coupe remained unsold during the year.
1	29	14	11	30	...	.....	7	.....	Difficulty of labour.
.....	.....	3	...	...	224	.....	.....	1	
.....	58	32	27	...	...	.....	80	63	Arrears due to extreme difficulty in exploitation.
.....	50	26	8	113	...	.....	193	106	Only 1 year in arrears.
.....	.....	.....	...	...	982	.....	79	20	Several blocks not worked owing to high cost and poor forest.
.....	Not estimated.	1	...	64	1,348	.....	61	37	Many coupes are evergreen or too poor to work.
.....	4	3	...	19	156	.....	27	21	
.....	.....	.....	33	...	...	.....	33	28	
.....	22	22	18	5	94	.....	30	10	
14	196	102	1	12	1,929	.....	147	58	Arrears due to difficulty in procuring labour and transport.
Not estimated.		.....	*Nil*	*Nil*	29	.....	2	1	
.....	37	37	35	29	133	.....	106	67	
.....	10	10	...	...	1,586	.....	17	17	
.....	.....	.....	...	...	...	.....	.....	.....	
.....	.....	.....	...	...	...	.....	.....	.....	

(*c*) Includes 32 acres worked for war supplies outside working plan prescriptions.

(*d*) Do. 534 do. special thinnings over the whole area for do.

W. E. COPLESTON,
Conservator of Forests, S. C.

FORM No. 12.—*Statement showing communications*

Division.	New works undertaken during the year.													
	Buildings.					Roads and paths.							Other works.	Total expenditure on new Works.
	Expenditure on				Total expenditure incurred.	Cart roads.		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	
	Head quarter houses.	Rest-houses.	Houses for subordinate establishment.	Others.		Length.	Cost.	Length.	Cost.	Length.	Cost.				
1	2(*a*)	2(*b*)	2(*c*)	2(*d*)	3	4(*a*)	4(*b*)	4(*c*)	4(*d*)	4(*e*)	4(*f*)	5	6	7	8
NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Panch Mahâls ...	...	...	...	...	.....	...	...	...	..	...	...	...	...	501 0 0	501 0 0
Surat ...	...	681 0 0	950 0 0	866 0 0	2,497 0 0	18½	7,608 0 0	...	...	...	...	18½	7,608 0 0	651 0 0	10,756 0 0
North Thâna ...	...	...	15,661 0 0	...	15,661 0 0	2½	2,506 0 0	...	...	...	...	2½	2,506 0 0	1,730 0 0	19,897 0 0
West Thâna ...	...	...	427 0 0	777 0 0	1,204 0 0	7½	3,968 0 0	...	...	...	...	7½	3,968 0 0	...	5,172 0 0
East Thâna ...	...	...	...	488 0 0	488 0 0	5½	2,041 0 0	...	...	...	...	5½	2,041 0 0	93 0 0	2,622 0 0
South Násik ...	...	...	1,221 0 0	...	1,221 0 0	11	2,298 0 0	...	...	...	...	11	2298 0 0	...	3,519 0 0
North Násik ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Total, Northern Circle ...	...	681 0 0	18,259 0 0	2,131 0 0	21,071 0 0	45	18,421 0 0	...	...	...	...	45	18,421 0 0	2,975 0 0	42,467 0 0
CENTRAL CIRCLE.															
East Khándesh ...	...	...	6,649 0 0	...	6,649 0 0	27	867 0 0	...	...	...	...	27	867 0 0	350 0 0	7,866 0 0
West Khándesh ...	...	...	3,163 0 0	...	3,163 0 0	...	...	...	...	...	...	...	...	...	3,163 0 0
North Khándesh ...	...	215 0 0	1,707 0 0	...	1,922 0 0	7	3,179 0 0	...	...	...	...	7	3,179 0 0	...	5,101 0 0
Poona ...	...	...	3,910 0 0	...	3,910 0 0	...	...	...	...	...	...	...	...	...	3,910 0 0
Sátára ...	...	...	...	2,856 0 0	2,856 0 0	...	...	...	...	...	...	...	...	...	2,856 0 0
Kolába ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Total, Central Circle ...	...	215 0 0	15,429 0 0	2,856 0 0	18,500 0 0	34	4,046 0 0	...	...	...	...	34	4,046 0 0	350 0 0	22,896 0 0
SOUTHERN CIRCLE.															
Kánara, Northern ...	287 0 0	166 0 0	2,736 0 0	...	3,189 0 0	9	12,649 0 0	...	...	...	...	9	12,649 0 0	192 0 0	16,030 0 0
Kánara, Eastern ...	...	...	5,465 0 0	...	5,465 0 0	...	...	...	...	...	...	...	...	976 0 0	6,441 0 0
Kánara, Central ...	...	...	...	...	.....	5	3,579 0 0	...	...	...	...	5	3,579 0 0	...	3,579 0 0
Kánara, Southern ...	...	118 0 0	17 0 0	...	135 0 0	...	...	...	...	...	...	...	...	50 0 0	185 0 0
Kánara, Western ...	...	...	40 0 0	...	40 0 0	9	25,835 0 0	4	39 0 0	...	...	13	25,874 0 0	6,594 0 0	32,508 0 0
Belgaum ...	...	...	193 0 0	...	193 0 0	4	15,194 0 0	...	...	...	...	4	15,194 0 0	377 0 0	15,764 0 0
Dhárwár-Bijápur ...	...	...	240 0 0	...	240 0 0	...	...	...	...	...	...	...	...	234 0 0	474 0 0
Ratnágiri ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Total, Southern Circle ...	287 0 0	284 0 0	8,691 0 0	...	9,262 0 0	27	57,257 0 0	4	39 0 0	...	...	31	57,296 0 0	8,423 0 0	74,981 0 0
SIND CIRCLE.															
Sukkur ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	121 0 0	121 0 0
Shikárpur ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Lárkána ...	...	...	...	...	.....	...	...	7½	150 0 0	...	...	7½	150 0 0	...	150 0 0
Hyderabad ...	...	3,400 0 0	...	...	3,400 0 0	...	...	...	...	...	...	...	...	...	3,400 0 0
Karáchi ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1,289 0 0	1,289 0 0
Total, Sind Circle ...	...	3,400 0 0	...	...	3,400 0 0	...	...	7½	150 0 0	...	...	7½	150 0 0	1,410 0 0	4,960 0 6
Grand Total ...	287 0 0	4,580 0 0	42,379 0 0	4,987 0 0	52,233 0 0	106	79,724 0 0	11½	189 0 0	...	...	117½	79,913 0 0	13,158 0 0	1,45,304 0 0

and buildings during the year 1917-1918.

Repairs executed during the year.															
Buildings.					Roads and paths.								Other works.		Remarks.
Expenditure on					Cart roads.		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	Total expenditure incurred.	
Head quarter houses.	Rest-houses.	Houses for subordinate establishment.	Others.	Total expenditure incurred.	Length.	Cost.	Length.	Cost	Length.	Cost.					
9(a)	9(b)	9(c)	9(d)	10	11(a)	11(b)	11(c)	11(d)	11(e)	11(f)	12	13	14	15	16
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
337 0 0	...	96 0 0	...	493 0 0	...	...	...	...	...	...	.....	.....	44 0 0	537 0 0	
...	...	2,623 0 0	...	2,623 0 0	...	6,017 0 0	...	...	...	...	.....	6,017 0 0	312 0 0	8,952 0 0	
...	...	641 0 0	...	641 0 0	...	...	...	...	...	...	.....	.....	.....	641 0 0	
...	...	387 0 0	...	387 0 0	...	176 0 0	...	...	...	...	.....	176 0 0	31 0 0	594 0 0	
...	...	413 0 0	...	413 0 0	...	565 0 0	...	...	...	...	.....	565 0 0	47 0 0	1,025 0 0	
...	...	326 0 0	...	316 0 0	...	2,344 0 0	...	...	...	...	.....	2,344 0 0	.....	2,660 0 0	
...	...	5 0 0	...	5 0 0	...	...	...	...	...	...	.....	.....	.....	5 0 0	
397 0 0	...	4,481 0 0	...	4,378 0 0	...	9,102 0 0	...	...	...	...	.....	9,102 0 0	434 0 0	14,414 0 0	
...	400 0 0	397 0 0	...	707 0 0	127	1,090 0 0	...	...	...	...	127	1,090 0 0	.....	1,797 0 0	
...	...	212 0 0	...	212 0 0	...	770 0 0	...	...	...	...	.....	770 0 0	.....	982 0 0	
21 0 0	72 0 0	691 0 0	...	784 0 0	...	...	114	1,076 0 0	...	...	114	1,076 0 0	.....	1,860 0 0	
...	32 0 0	72 0 0	...	104 0 0	4	713 0 0	40	1,062 0 0	...	100 0 0	44	1,875 0 0	.....	1,979 0 0	
...	...	407 0 0	...	407 0 0	27	1,941 0 0	...	...	...	100 0 0	27	2,041 0 0	89 0 0	2,537 0 0	
...	...	365 0 0	...	365 0 0	7	121 0 0	...	...	...	...	7	121 0 0	.....	486 0 0	
21 0 0	504 0 0	2,054 0 0	...	2,579 0 0	165	4,635 0 0	154	2,138 0 0	...	200 0 0	319	6,973 0 0	89 0 0	9,641 0 0	
25 0 0	35 0 0	749 0 0	...	809 0 0	42	10,372 0 0 (a) 5,000 0 0 (b) —1,000 0 0	...	...	...	...	42	10,372 0 0 (a) 5,000 0 0 (b) —1,000 0 0	473 0 0	15,654 0 0	(a) Contribution to District Local Board for repairs of Local Board roads. (b) Contribution from District Local Board for repairs of Forest roads.
73 0 0	480 0 0	645 0 0	...	1,198 0 0	112	19,782 0 0	12	23 0 0	...	...	124	19,805 0 0	1,006 0 0	22,009 0 0	
492 0 0	263 0 0	259 0 0	...	1,014 0 0	...	...	...	...	...	...	.....	.....	572 0 0	1,586 0 0	
...	119 0 0	351 0 0	...	470 0 0	17	1,529 0 0	...	...	...	...	17	1,529 0 0	65 0 0	2,064 0 0	
30 0 0	398 0 0	398 0 0	...	826 0 0	61	14,519 0 0 (a) 5,000 0 0	7	111 0 0	...	...	68	14,630 0 0 (a) 5,000 0 0	82 0 0	20,538 0 0	
235 0 0	174 0 0	326 0 0	...	735 0 0	95	5,501 0 0	...	...	...	...	95	5,501 0 0	51 0 0	6,287 0 0	
...	...	477 0 0	...	477 0 0	...	...	...	...	...	...	.....	.....	5 0 0	482 0 0	
...	...	28 0 0	...	28 0 0	...	...	...	...	...	...	.....	.....	.....	28 0 0	
855 0 0	1,469 0 0	3,233 0 0	...	5,557 0 0	327	60,703 0 0	19	134 0 0	...	...	346	60,837 0 0	2,254 0 0	68,648 0 0	
...	...	805 0 0	...	805 0 0	...	...	...	...	...	...	.....	.....	597 0 0	1,402 0 0	
...	...	295 0 0	...	295 0 0	...	...	...	...	...	...	.....	.....	197 0 0	492 0 0	
...	...	592 0 0	...	592 0 0	...	...	...	...	...	...	.....	.....	635 0 0	1,227 0 0	
...	...	1,248 0 0	...	1,248 0 0	...	...	...	...	...	...	.....	.....	380 0 0	1,628 0 0	
...	...	395 0 0	...	395 0 0	...	...	...	...	...	...	.....	.....	1,770 0 0	2,165 0 0	
...	...	3,335 0 0	...	3,335 0 0	...	...	...	...	...	...	.....	.....	3,579 0 0	6,914 0 0	
1,273 0 0	1,973 0 0	13,103 0 0	...	16,349 0 0	492	74,440 0 0	173	2,272 0 0	...	200 0 0	665	76,912 0 0	6,356 0 0	99,617 0 0	

FORM No. 13.—*Statement showing register of*

Forest Division.	Cases pending from previous year.			New cases of the year.														
				Injury to forest by fire.			Unauthorized felling.			Unauthorized grazing.			Other offences.			Total.		
	A.	B.	All.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NORTHERN CIRCLE.																		
Panch Mahâls ...	9	130	139	2	5	54	4	492	344	15	941	4	1	24	...	22	1,462	402
Surat ...	5	26	31	...	3	1	...	45	2	...	35	1	...	12	...	...	95	4
North Thâna ...	7	114	121	...	1	48	2	181	90	...	265	2	...	13	...	2	460	140
West Thâna ...	16	17	33	9	...	22	25	162	47	24	368	2	1	24	...	59	554	71
East Thâna ...	2	101	103	11	11	73	43	254	116	7	360	1	7	66	6	68	691	196
South Násik ...	...	...	...	...	3	19	2	158	30	6	123	...	1	20	1	9	304	50
North Násik ...	2	...	2	...	...	8	3	236	37	1	246	...	1	25	...	5	507	45
Násik Sub-Division ...	1	34	35	...	1	3	21	442	35	6	444	...	1	26	1	28	913	39
Total, Northern Circle ...	42*	422*	464	22	24	228	100	1,970	701	59	2,782	10	12	210	8	193	4,986	947
CENTRAL CIRCLE.																		
East Khándesh ...	12†	159‡	171	2	1	24	11	267	114	8	360	1	12	168	4	33	796	143
West Khándesh ...	8	212	220	...	53	23	4	413	53	12	483	4	3	36	1	19	985	81
North Khándesh ...	2	117	119	1	7	39	7	175	91	9	188	3	4	59	1	21	424	134
Poona ...	10‡	205‡	215	1	29	69	20	646	120	21	848	7	4	151	1	46	1,674	197
Sâtâra ...	13§	194§	207	2	25	22	18	423	42	27	679	2	14	143	6	61	1,270	72
Kolâba ...	65‡	110	175	14	7	30	112	266	190	163	313	14	19	52	2	308	638	236
Total, Central Circle ...	110	997	1,107	20	122	207	172	2,190	610	240	2,866	31	56	609	15	488	5,787	863
SOUTHERN CIRCLE.																		
Kánara, Northern ...	10	48	58	2	4	53	2	98	18	1	192	7	...	1	...	5	295	78
Kánara, Eastern ...	1	6	7	...	7	118	3	67	30	6	115	1	...	7	1	9	196	150
Kánara, Central ...	18	69	87	3	11	293	10	517	42	3	19	...	...	24	3	16	571	338
Kánara, Southern ...	60	179	239	2	14	143	33	635	42	...	26	...	2	44	3	37	719	188
Kánara, Western ...	20	69	89	6	6	81	21	182	13	...	51	1	2	15	1	29	254	96
Belgaum ...	23	137	160	...	17	153	7	367	83	31	748	...	2	47	...	40	1,179	266
Dhárwár-Bijápur ...	12	20	32	...	3	68	10	205	43	3	254	2	...	36	...	13	498	113
Ratnágiri ...	...	2	2	...	1	1	...	13	6	...	...	...	...	1	...	...	14	7
Total, Southern Circle.	144	530	674	13	63	940	86	2,083	277	44	1,405	11	6	175	8	149	3,726	1,236
SIND CIRCLE.																		
Sukkur ...	13	...	13	...	...	32	29	413	224	13	649	...	6	1	...	48	1,062	256
Shikárpur ...	25	1	26	...	...	15	12	201	126	7	356	...	...	10	...	19	568	141
Lárkána ...	...	32	32	...	...	9	1	197	26	2	321	...	2	5	...	5	523	35
Hyderabad ...	8	...	8	...	...	9	23	126	42	1	204	...	...	1	...	24	331	51
Karáchi ...	6	8	14	...	1	37	10	123	6	4	135	...	...	2	...	14	261	43
Total, Sind Circle ...	52	41	93	...	1	102	75	1,059	424	27	1,665	...	8	19	...	110	2,745	526
Grand Total ...	348	1,990	2,338	55	210	1,477	433	7,302	2,012	370	8,718	52	82	1,013	31	940	17,244	3,572

* Five cases transferred from B to A and 1 from A to B.
† Two cases withdrawn and subsequently cancelled.
‡ One case transferred to A from B.
§ Five cases transferred to A from B.

A Means cases taken into Court
B " " compounded and let off with warning.
C " " undetected.

breaches of Forest Rules during the year 1917-18.

Total cases.				Disposed of during the year.														Cases pending at the close of the year.			Remarks.
				Convictions.				Acquittals.				Total.									
				Cases.		Persons.		Cases.		Persons.		Cases.			Persons.						
A.	B.	C.	All.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	All.	A.	B.	All.	A.	B.	All.	
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
31	1,593	402	2,025	25	1,567	78	3,471	2	...	2	...	27	1,567	1,594	80	3,471	3,551	4	25	29	
5	121	4	130	5	101	16	199	...	...	...	...	5	101	106	16	199	215	...	20	20	
9	574	140	723	8	527	14	932	...	...	...	...	8	527	535	14	932	946	1	47	48	
75	571	71	717	64	567	99	1,462	2	...	3	...	66	567	633	102	1,462	1,564	9	4	13	
70	792	196	1,058	56	674	146	1,931	3	...	25	...	59	674	733	171	1,931	2,102	11	118	129	
9	304	50	363	9	304	29	926	...	...	...	...	9	304	313	29	926	955	...	...	...	
7	507	45	559	4	507	8	1,300	...	...	...	...	4	507	511	8	1,300	1,308	3	...	3	
29	947	39	1,015	27	893	91	2,589	2	...	6	...	29	896	925	97	2,589	2,686	...	51	51	
235	5,408	947	6,590	198	5,143	431	12,810	9	...	36	...	207	5,143	5,350	517	12,810	13,327	28	265	293	
45	955	143	1,143	32	806	148	2,310	3	...	19	...	35	806	985	167	2,310	2,477	9	149	158	1 withdrawn.
27	1,197	81	1,305	17	784	38	2,049	1	...	46	...	18	784	883	84	2,049	2,133	9	413	422	
23	541	134	698	17	414	32	1,076	...	...	...	...	17	414	565	32	1,076	1,108	6	127	133	
56	1,879	197	2,132	39	1,565	62	3,705	4	...	45	...	43	1,565	1,805	107	3,705	3,812	13	314	327	
74	1,464	72	1,610	63	1,255	120	2,832	5	...	10	...	68	1,255	1,393	130	2,832	2,962	6	209	215	
373	748	236	1,357	263	678	483	1,422	33	...	54	...	316	673	1,231	537	1,422	1,959	56	70	126	1 withdrawn.
598	6,784	833	8,245	451	5,502	883	13,394	46	...	174	...	497	5,502	6,864	1,057	13,394	14,451	99	1,282	1,381	2 withdrawn.
15	343	78	436	12	302	13	751	3	...	3	91	15	302	317	16	842	858	...	41	41	
10	202	150	362	9	197	10	454	1	...	1	...	10	197	207	11	454	465	...	5	5	
34	610	368	1,012	19	500	24	986	10	...	30	...	29	500	529	54	986	1,040	5	140	145	
97	898	188	1,183	68	774	115	1,516	12	...	40	...	80	774	854	155	1,516	1,671	17	124	141	
49	323	96	468	38	311	72	663	3	...	4	...	41	311	352	76	663	739	8	12	20	
62	1,316	266	1,645	40	1,052	106	2,205	3	...	5	...	43	1,052	1,095	111	2,205	2,316	20	264	284	
25	518	113	656	18	476	69	1,653	4	...	28	...	22	476	498	97	1,653	1,750	3	42	45	
...	16	7	23	...	15	...	15	...	...	...	...	...	15	15	...	15	15	...	1	1	
293	4,256	1,236	5,785	204	3,627	409	8,243	36	...	111	91	240	3,627	3,867	520	8,334	8,854	53	629	682	
61	1,062	256	1,379	41	1,062	90	1,272	15	...	55	...	56	1,062	1,118	145	1,272	1,417	4	...	4	
44	568	141	753	17	563	46	677	9	...	48	...	26	568	594	94	677	771	17	...	17	
5	555	35	595	2	530	4	536	...	...	...	...	2	530	532	4	536	540	3	25	28	
32	331	51	414	12	331	26	606	1	...	6	...	13	331	344	32	606	638	19	...	19	
20	269	43	332	7	261	15	341	...	...	...	...	7	261	268	15	341	356	10	8	18	
162	2,785	526	3,473	79	2,752	181	3,432	25	...	109	...	104	2,752	2,856	290	3,432	3,722	53	33	86	
1,238	19,233	3,572	24,093	932	17,024	1,954	37,879	116	...	430	91	1,048	17,024	18,937	2,384	37,970	40,354	233	2,209	2,442	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1917-1918.*

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
NORTHERN CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Panch Mahals ...	South Godhra Range	...	51,638	51,828	149	51,679	3,146 0 0	
	North do. ...	...	36,866	37,428	468	36,960		
	Kalol	...	20,681	21,527	1,644	19,883		
	Hálol	...	26,790	28,264	1,362	26,902		
	Dohad	...	44,784	46,242	1,792	44,450		
	Jhalod	...	25,820	26,863	794	26,069		
	Total ...	...	206,579	212,152	6,209	205,943	3,146 0 0	
Surat	Dángs	...	419,735	419,810	11	419,799	5,956 0 0	
	Mándvi	...	40,887	40,887	...	40,887		
	Bulsár-Chikhali ...	...	2,810	2,810	...	2,810		
	Total ...	...	463,432	463,507	11	463,496	5,956 0 0	
North Thána ...	Sanjan	...	1,25,753	31,116	201	30,915	3,300 0 0	
	Udawa			35,712	873	34,839		
	Kasa			62,479	976	61,503		
	Palghar	...	31,145	28,900	427	28,473		
	Manor	...	26,585	29,119	702	28,417		
	Dahisar	...	20,258	33,836	202	33,634		
	Total ...	...	203,741	221,162	3,381	217,781	3,300 0 0	
West Thána ...	Bassein	...	54,258	41,037*	...	41,037	3,537 0 0	
	West Váda	...	32,602	32,919	203	32,716		
	Bhiwndi	...	43,741	43,970	660	43,310		
	Sálsette	...	14,503	14,809	457	14,352		
	Kalyán	...	33,158	33,438	356	33,082		
	West Murbád ...	...	26,164	26,430	222	26,258		
	Total ...	...	204,426	192,653	1,898	190,755	3,537 0 0	
East Thána ...	Khardi	...	51,279	52,354	1,236	51,118	4,140 0 0	
	Mokháda	...	38,957	41,838	353	41,485		
	North Sháhápur ...	...	41,636	45,604	3,687	41,917		
	South do. ...	...	24,069	24,645	1,273	23,372		
	East Murbad ...	...	29,000	29,370	820	28,550		
	East Vada ...	...	45,814	46,809	2,229	44,580		
	Igatpuri ...	...	53,273	53,602	670	52,932		
	Total ...	...	284,028	294,222	10,268	283,954	4,140 0 0	
South Násik ...	Násik	...	40,340	40,917	662	40,225	302 0 0	
	Dindori	...	51,315	53,734	566	53,198		
	Peint	...	125,971	126,234	90	126,144		
	Total ...	...	217,626	220,885	1,318	219,567	302 0 0	
North Násik ...	Málegaon	...	89,031	89,139	14	89,125	53 0 0	
	Baglan	...	119,975	119,992	700	119,292		
	Kalwan	...	106,821	107,032	157	106,875		
	Total ...	...	315,827	316,163	871	315,292	53 0 0	
Násik Sub-Division .	Chandor	...	30,092	30,112	...	30,112	42 0 0	
	Nandgaon	...	76,431	77,586	...	77,586		
	Sinnar	...	31,561	31,601	40	31,561		
	Yeola	...	25,797	25,831	3	25,828		
	Total ...	...	1,63,881	165,130	43	165,087	42 0 0	
	Total, Northern Circle.	...	20,59,540	20,85,874	23,999	20,61,875	20,476 0 0	

* Reduced on account of the transfer of area to North Thána.

FORM No. 14.—*Area of Forest Tracts protected from fire during 1917-1918*—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2.	3	4	5	6	7	8	9
CENTRAL CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
East Khándesh ...	Cháliagaon	...	36,280	38,250	150	38,100	120 0 0	
	Chopda	...	87,319	107,700	8,864	98,836	673 0 0	
	Edalabad	...	39,694	41,346	1,690	39,656	48 0 0	
	Jalgaon	...	38,190	38,812	115	38,697	.....	Includes Erandol Táluka.
	Jánner	...	62,483	64,390	558	63,832	23 0 0	Do. Bhusawal Táluka.
	Parola	...	43,842	43,921	...	43,921	.....	
	Ráver	...	69,507	76,210	1,461	74,749	233 0 0	
	Yáwal	...	54,790	78,000	4,510	73,490	737 0 0	
	Total ...	...	432,705	488,629	17,348	471,281	1,834 0 0	
West Khándesh ...	Dhulia	...	73,803	75,796	6	75,790	42 0 0	Includes Sindkheda Táluka.
	Sákri	...	170,302	180,847	15,901	164,946	1,520 0 0	
	Pimpalner							
	Nandurbár	...	61,996	63,559	1,017	62,542	1,233 0 0	
	Navápur	...	60,212	61,377	14,386	46,991	1,870 0 0	
	Total ...	...	365,813	381,579	31,310	350,269	4,665 0 0	
North Khándesh ...	Akráni	...	101,799	194,683	18,403	176,280	2,255 0 0	
	Taloda	...	56,120	71,161	4,750	66,411	1,302 0 0	
	Sháháda	...	77,781	83,581	9,899	73,682	935 0 0	
	Shirpur, East ...	..	196,493	206,771	26,124	180,647	2,318 0 0	
	Do. West ...							
	Total ...	...	432,193	556,196	59,176	497,020	6,810 0 0	
Kolába ...	Alibág	...	27,201	27,489	18	27,471	240 0 0	
	Pen	...	29,946	29,964	33	29,931	300 0 0	
	Panvel	...	27,363	27,572	55	27,517	209 0 0	
	Karjat	...	32,218	32,520	333	32,187	400 0 0	
	Khálápur	...	21,699	21,879	18	21,861	150 0 0	
	Nágothna	...	35,205	35,219	25	35,194	399 0 0	
	Roha	...	39,180	39,278	142	39,136	472 0 0	
	Mángaon	...	26,249	26,290	41	26,249	343 0 0	
	Mahád	...	25,646	25,877	18	25,859	125 0 0	
	Dápoli	...	2,122	2,119	3	2,116	69 0 0	
	Mátherán	...	1,101	1,061	...	1,061	33 0 0	
	Total ...	...	267,930	269,268	686	268,582	2,746 0 0	
Poona	Akola	...	66,631	66,874	344	66,530	1 0 0	Includes part of Sangamner Táluka.
	Ambegaon	...	38,665	38,942	169	38,773	.....	
	Dhond	...	7,015	7,080	...	7,080	.....	
	Haveli	...	25,078	26,523	2,068	24,455	119 0 0	Includes parts of Indápur and Shirur Tálukas of Poona District and part of Shrigonda Táluka of Ahmednagar District.
	Junnar	...	38,586	39,244	215	39,029	10 0 0	
	Khed	...	34,235	35,449	885	34,564	.....	
	Lonávla	...	46,468	47,215	360	46,855	25 0 0	
	Mával							
	Mulshi	...	26,334	26,691	...	26,691	.....	
	Purandhar	...	8,249	8,579	160	8,419	.....	Includes part of Bhimthadi Táluka.
	Rájur	...	65,022	65,087	32	65,055	.....	
	Total ...	...	356,283	361,684	4,233	357,451	155 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1917-1918*—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE —*concluded.*			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Sátára	Jávli	...	58,508	58,524	19	58,505	.....	
	Karád	...	33,452	33,541	105	33,436	.....	Includes part of Tasgaon Táluka.
	Mahábleshwar ...	...	43,040	43,219	66	43,153	150 0 0	
	Pátan	...	74,068	75,048	378	74,670	.....	
	Sátára	...	50,612	50,681	70	50,611	.....	Includes part of Khatao Táluka.
	Shirála	...	36,064	36,211	10	36,201	.....	
	Wái	...	33,198	33,264	36	33,228	.....	
	Total ...	...	328,922	330,488	684	329,804	150 0 0	
	Total, Central Circle...	...	2,183,846	2,337,844	113,437	2,274,407	16,360 0 0	
SOUTHERN CIRCLE.								
Kánara, Northern ...	Haliyál	1887-88 ...	47,718	51,080	3,734	47,346	1,147 0 0	
	Sambrani	,, ...	47,043	47,100	120	46,980	483 0 0	
	Dandeli	,, ...	53,076	53,300	4,835	48,465	327 0 0	
	Kulgi	,, ...	29,261	29,261	...	29,261	864 0 0	
	Virnoli	,, ...	43,083	46,597	29	46,568	493 0 0	
	Kalghatgi	1888-89 ...	42,314	44,800	4,281	40,519	950 0 0	
	Total ...	...	262,495	272,318	12,999	259,139	4,269 0 0	
Kánara, Eastern ...	Yellápur	1888-89 ...	114,127	114,763	2,053	112,710	566 0 0	
	Kirwatti	,, ...	65,470	66,126	15,629	50,497	1,474 0 0	
	Bhartnalli	,, ...	63,870	64,085	1,049	63,036	447 0 0	
	Mundgod	,, ...	63,330	64,303	19,381	44,922	1,530 0 0	
	Katur	,, ...	41,890	42,343	3,208	39,135	734 0 0	
	Dhundshi	,, ...	23,838	24,141	442	23,699	526 0 0	
	Total ...	...	372,525	375,761	41,762	333,999	5,277 0 0	
Kánara Central (New Division) ...	Sirsi	1906-07 ..	203,983	215,273	18,654	196,619	888 0 0	
	Ankola	1888-89 ...	220,444	221,806	1,397	220,409		
	Kumta	1899-00 ...	61,467	61,751	164	61,587		
	Total ...	...	485,894	498,830	20,215	478,615	888 0 0	
Kánara, Southern ...	Siddápur	1910-11 ...	199,622	141,193	3,276	137,917	155 0 0	
	Honávar	1900-01 ...	123,507	124,581	549	124,032	239 0 0	
	Bhatkal	1899-00 ...	122,776	124,034	2,021	122,013	270 0 0	
	Total ...	...	445,905	389,808	5,846	383,962	664 0 0	
Kánara, Western ...	Kárwár	1887-88 ...	81,223	81,656	319	81,337	548 0 0	
	Kadra	,, ...	204,647	205,638	396	205,242	1,047 0 0	
	Supa	1888-89 ...	216,579	219,388	5,233	214,155	638 0 0	
	Gund	,, ...	22,982	23,483	90	23,393	287 0 0	
	Total ...	...	525,431	530,165	6,038	524,127	2,520 0 0	
Belgaum	Belgaum	1888-89 ...	82,952	84,448	1,215	83,233	6,012 0 0	
	Khánápur, Eastern ...	1886-87 ...	43,321	48,205	10,689	37,516		
	Khánápur, Central ...	1910-11 ...	73,264	77,600	8,713	68,887		
	Khánápur, Western ..	1889-90 ...	96,197	97,706	1,580	96,126		
	Gokák	1894-95 ...	98,122	126,969	3,136	123,833		
	Total ...	...	394,356	434,928	25,333	409,595	6,012 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1917-1918*—concluded.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
SOUTHERN CIRCLE—*continued.*			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Dhárwár-Bijápur (New Division) ...	Dhárwár	1883-89 ...	18,046	18,778	1,171	17,607	.....	
	Hangal	„ ...	9,337	9,495	268	9,227	194 0 0	
	Kod	1907-08 ...	16,951	18,052	1,648	16,404	168 0 0	
	Bádámi	1889-90 ...	15,921	19,619	1,269	18,350	334 0 0	
	Bágalkot	„ ...	2,488	4,837	398	4,439	203 0 0	
	Total ...	...	62,743	70,781	4,754	66,027	899 0 0	
Ratnágiri	Khed	1889-90 ...	7,684	7,709	1	7,708	.....	
	Sangameshvar ...	1892-93 ...	3,711	3,711	...	3,711	.....	
	Málvan	„ ...	634	634	...	634	.....	
	Total ...	...	12,029	12,054	1	12,053	.....	
	Total, Southern Circle.	...	2,561,378	2,584,465	116,948	2,467,517	20,529 0 0	
SIND CIRCLE.								
Sukkur	Mirpur	Not known	43,566	45,202	733	44,469	.....	
	Ghotki		30,685	30,685	187	30,498	.....	
	Parwakil		52,369	52,492	287	52,205	.....	
	Sukkur		35,805	36,092	121	35,971	.....	
	Rohri		45,117	45,387	49	45,338	.....	
	Total ...	...	207,540	209,858	1,377	208,481	.....	
Shikarpur ...	Sukkur	Not known	35,387	34,826	171	34,655	.....	
	Shikarpur ...	1885-86 & 1887-88.	47,570	47,605	...	47,605	.....	
	Kashmore	1895-96 ...	34,569	34,798	10	34,788	.....	
	Total ...	...	117,526	117,229	181	117,048	.....	
Lárkána	Lárkána	Not known	25,682	25,254	158	25,096	.....	
	Radhan		22,611	22,598	...	22,598	.....	
	Sehwán		23,530	22,042	211	21,831	.....	
	Kandiáro		43,407	42,197	32	42,165	.....	
	Total ...	...	115,230	112,091	401	111,690	.....	
Hyderabad ...	Hyderabad	Not known	2,223	2,223	...	2,223	.....	
	Miáni		29,877	26,492	...	26,492	.....	
	Hála		52,063	51,223	3	51,220	.....	
	Sakrand		49,392	49,377	193	49,184	.....	
	Manjhand		31,210	30,938	...	30,938	.....	
	Total ...	...	164,765	160,253	196	160,057	.....	
Karachi	Katiar	Not known.	20,801	20,037	...	20,037	.....	
	Mulchand	1912-13	47,556	48,277	1,297	46,980	999 0 0	
	Sujawal		23,927	22,510	207	22,303	255 0 0	
	Tatta		52,200	52,118	187	51,931	230 0 0	
	Total ...	...	144,484	142,942	1,691	141,251	1,484 0 0	
	Total, Sind Circle ...	...	749,545	742,373	3,846	738,527	1,484 0 0	
	GRAND TOTAL ...	...	7,551,309	7,800,556	258,230	7,542,326	58,849 0 0	

FORM No. 15.—*Causes of*

Division or Circle.	(A) Fires caused by accident or through carelessness in burning fire lines.		(B) Fires entering the forests by crossing exterior fire-traces.		(C) FIRES BEGINNING INSIDE THE							
					Owing to carelessness or accident.							
					By workmen employed in the forests, by purchasers, cutters, etc.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire-balloons.	
	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.												
Panch Mahâls	3	49	1	365	2	653	...	...	1	10	...	...
Surat	2	1	...	...	...	...	...	...	...	...	...	...
North Thâna	5	248	1	165	1	2	4	399	2	21	...	...
West do.	...	...	3	523	1	10	16	492	...	...	...	...
East do.	2	135	18	1,297	1	4	17	2,082	4	333	...	...
South Nâsik	...	...	4	171	...	...	10	445	...	...	...	...
North do.	1	700	1	15	...	...	2	12	...	...	...	...
Nâsik Sub-Division	...	...	...	...	...	...	1	3	...	...	...	...
Total	13	1,133	28	2,536	5	669	50	3,433	7	364	...	...
CENTRAL CIRCLE.												
East Khándesh	5	60	5	5,100	14	7,595	8	2,103	1	5	...	...
West do.	...	...	8	7,852	...	...	4	1,253	...	...	...	...
North do.	7	2,210	7	13,774	...	...	19	30,343	...	...	...	...
Kolâba	1	6	20	224	1	2	15	166	5	56	...	...
Poona	3	118	27	309	...	...	33	1,576	1	3	...	...
Sátára	...	...	20	66	...	...	...	...	...	...		
Total	16	2,394	87	27,325	15	7,597	79	35,441	7	64	...	...
SOUTHERN CIRCLE.												
Kánara, Northern	8	1,165	7	953	...	...	...	...	2	180	...	...
Do. Eastern	3	57	10	617	2	325	28	670	...	...	...	...
Do. Central	1	3	10	411	2	156	75	6,242	...	...	...	...
Do. Southern	1	5	4	332	...	...	25	1,181	...	...	...	...
Do. Western	...	...	14	572	2	50	7	117	1	2	...	...
Belgaum	3	7	9	541	8	499	...	...	3	42	...	...
Dhárwár-Bijápur	2	277	1	700	...	...	4	246	6	130	...	...
Ratnágiri	...	...	2	1	...	...	...	...	...	...	...	...
Total	18	1,514	57	4,127	14	1,020	139	8,456	12	354	...	...
SIND CIRCLE.												
Sukkur	...	...	...	...	5	143	3	121	1	15	...	...
Shikarpur	...	...	...	...	...	...	...	...	...	...	...	...
Lárkána	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad	...	...	...	...	1	20	...	..	...	...	...	...
Karachi	1	12	...	...	2	6	4	12	...	...		
Total	1	12	...	...	8	169	7	133	1	15	...	...
GRAND TOTAL	48	5,053	172	33,988	42	9,465	275	47,463	27	797	...	...

Forest Fires during 1917-18.

Reserve or fire-traced Area.												
By Intentional Firing.								Causes Unknown.		Total (A), (B) and (C).		Remarks.
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.						
No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	
14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	...	...	...	...	3	663	48	5,132	55*	6,209	*Plus 6 cases on account of breach of rules in which no area was burnt. † Plus 1 case. Do.
...	...	...	...	...	...	...	...	1	10	3†	11	
...	...	...	...	...	...	7	422	36	2,546	49	3,581	
...	...	1	15	1	100	19	617	9	758	31	1,898	
...	...	8	980	...	...	30	3,399	45	5,437	95	10,268	
3	355	5	347	...	...	18	1,147	...	...	22	1,318	
...	...	...	...	...	...	2	12	4	144	8	871	
...	...	...	...	...	...	1	3	3	40	4	43	
3	355	14	1,342	1	100	80	6,263	146	14,067	267	23,999	
4	818	2	210	1	303	30	11,034	6	1,154	46	17,348	
21	9,015	7	2,458	...	...	32	12,726	36	10,732	76	31,310	
...	...	10	1,651	5	3,674	34	35,668	6	7,524	54	59,176	
...	...	...	...	...	...	21	224	10	232	52	686	
8	291	9	1,153	5	321	56	3,344	16	462	102	4,233	
...	...	...	...	...	...	...	...	29	618	49	684	
33	10,124	28	5,472	11	4,298	173	62,996	103	20,722	379†	113,437	† Includes 30 cases not accounted for in Form 13.
...	...	...	...	3	476	5	656	39	10,295	59	12,999	
22	1,761	9	2,461	26	15,832	87	21,049	25	20,039	125	41,762	
...	...	2	125	8	1,308	87	7,831	209	11,970	307	20,215	
...	...	...	...	...	...	25	1,181	129	4,328	159	5,846	
...	...	...	...	8	596	18	765	61	4,701	93	6,038	
...	...	2	77	78	18,817	91	19,435	97	5,360	200	25,333	
...	...	...	...	1	6	11	382	57	3,395	71	4,754	
...	...	...	...	...	...	...	...	...	...	2	1	
22	1,761	13	2,663	124	37,035	324	51,299	617	60,008	1,016	116,948	
..	...	...	...	...	...	9	279	23	1,098	32	1,377	
...	...	...	...	...	...	...	...	15	181	15	181	
...	...	...	...	...	...	...	...	9	401	9	401	
...	...	...	...	...	...	1	20	8	176	9	196	
24	1,434	...	...	6	224	36	1,676	1	3	38	1,691	
24	1,434	...	...	6	224	46	1,975	56	1,859	103	3,846	
82	13,674	55	9,477	142	41,657	623	122,533	922	96,656	1,765	258,230	

FORM No. 16.—*Area closed and open to grazing during 1917-1918.*

Division.	AREA IN SQUARE MILES.						Remarks.
	Closed to all animals.		Open to grazing				
			Of all animals.		Of all animals except browsers (camels, sheep, and goats).		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
Panch Mahâls	94 0	19 0	.....	.....	219 0	.....	
Surat	13 0	55 0	338 0	.....	.....	331 0	
North Thána	74 0	.....	148 0	.....	272 0	.....	
West do.	71 0	.....	89 0	.....	230 0	.....	
East do.	123 0	.....	142 0	.....	335 0	.....	
South Násik	58 0	9 0	102 0	.....	278 0	.....	
North do.	76 0	.....	183 0	.....	260 0	.....	
Násik Sub-Division	24 0	7 0	42 0	.....	223 0	.....	
Ahmedabad	.....	.....	19 0	.....	.....	.....	
Total, Northern Circle ...	533 0	90 0	1,063 0	.....	1,817 0	331 0	
CENTRAL CIRCLE.							
East Khándesh	210 0	58 0	36 0	.....	496 0	.....	
West do.	96 0	.....	177 0	.....	500 0	.....	
North do.	142 0	.....	.....	.....	727 0	.....	
Poona	37 0	63 0	456 0	.....	455 0	.....	
Sátára	35 0	.....	195 0	.....	481 0	.....	
Kolába	58 0	1 0	29 0	.....	362 0	.....	
Ahmednagar-Sholapur	.....	.....	774 0	.....	.....	.....	
Total, Central Circle ...	578 0	122 0	1,667 0	.....	3,031 0	.....	
SOUTHERN CIRCLE.							
Kánara, Northern...	238 0	.....	2 0	.....	186 0	.....	
Do. Eastern	260 0	.....	.....	.....	333 0	.....	
Do. Central	474 0	.....	.....	.....	360 0	.....	
Do. Southern...	133 0	.....	.....	.....	575 0	.....	
Do. Western...	264 0	.....	.....	.....	564 0	.....	
Belgaum	138 0	.....	3 0	.....	541 0	.....	
Dhárwár-Bijápur	16 0	6 0	158 0	.....	314 0	.....	
Ratnágiri	9 0	.....	.....	.....	10 0	.....	
Total, Southern Circle ...	1,532 0	6 0	163 0	.....	2,883 0	.....	
SIND CIRCLE.							
Sukkur	37 0	.....	93 0	.....	197 0	.....	
Shikarpur...	25 0	.....	60 0	.....	99 0	.....	
Larkana	13 0	.....	99 0	.....	63 0	.....	
Hyderabad...	17 0	.....	105 0	.....	129 0	.....	
Karachi	.....	.....	111 0	.....	110 0	.....	
Total, Sind Circle ...	92 0	.....	468 0	.....	598 0	.....	
GRAND TOTAL ...	2,735 0	219 0	3,361 0	.....	8,329 0	331 0	

FORM No. 17.

FORM No. 17.—*Return of Grazing*

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.												
	At full rates.						At privileged rates.						
												Fees received.	
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Actual.	Value at full rates.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs. a. p.						Rs. a. p.	Rs. a. p.
NORTHERN CIRCLE.													
Panch Mahâls ...	1,200	3,326	...	...	...	2,809 0 0	1,289	4,436	...	...	...	740 0 0	3,507 0 0
Surat ...	1	...	...	...	...	1 0 0	36	1,442	...	...	2	505 0 0	1,500 0 0
North Thâna ...	...	...	...	...	...	.....	66	317	...	...	...	70 0 0	281 0 0
West do. ...	113	537	...	...	...	477 0 0	864	3,109	...	...	...	1,347 0 0	3,023 0 0
East do. ...	119	3,484	...	...	...	2,326 0 0	1,536	13,797	10,237	...	...	5,198 0 0	10,796 0 0
South Násik ...	...	101	...	...	...	101 0 0	6,647	53,820	...	...	17	8,211 0 0	60,484 0 0
North do. ...	...	33	...	...	259	292 0 0	17,174	124,313	113,761	...	1,162	25,225 0 0	1,71,089 0 0
Násik Sub-Division ...	...	15	627	...	153	325 0 0	7,097	73,325	66,758	...	189	16,889 0 0	97,300 0 0
Total, Northern Circle ...	1,433	7,496	627	...	412	6,331 0 0	34,709	274,559	190,756	...	1,370	58,185 0 0	3,47,980 0 0
CENTRAL CIRCLE.													
East Khándesh ...	1,056	13,381	...	...	125	14,562 0 0	39,330	215,894	...	...	611	33,681 0 0	2,55,835 0 0
West do. ...	230	2,246	...	...	1,027	3,560 0 0	20,583	115,342	48,635	...	2,913	26,069 0 0	1,87,973 0 0
North do. ...	12,221	90,572	...	...	3,331	38,947 0 0	...	...	...	...	...	.....	.....
Poona ...	116	78	1	...	13	208 0 0	23,181	141,198	38,844	...	775	27,914 0 0	1,84,576 0 0
Sátára ...	20	...	...	...	...	20 0 0	34,961	100,704	...	...	306	17,816 0 0	1,35,971 0 0
Kolába ...	64	23	...	...	...	87 0 0	18,812	70,051	...	...	...	11,836 0 0	88,863 0 0
Total, Central Circle ...	13,757	106,300	1	...	4,496	57,384 0 0	136,867	643,689	87,479	...	4,605	1,17,316 0 0	8,53,218 0 0
SOUTHERN CIRCLE.													
Kánara, Northern ...	129		...	...	...	129 0 0	29,215		3,554	...	...	5,309 0 0	30,103 0 0
Do. Eastern ...	310		...	...	...	310 0 0	29,212		...	...	...	6,461 0 0	29,212 0 0
Do. Central ...	286		...	...	...	286 0 0	43,580		...	...	...	7,032 0 0	43,580 0 0
Do. Southern ...	17		...	...	...	17 0 0	59,399		...	...	...	8,053 0 0	59,399 0 0
Do. Western ...	...		...	...	...	.....	32,497		...	...	...	5,213 0 0	32,497 0 0
Belgaum ...	...		...	...	...	.....	50,182		...	...	...	8,834 0 0	50,182 0 0
Dhárwár-Bijápur ...	1,372		792	...	10	1,580 0 0	121,957		1,236	...	613	16,043 0 0	1,22,879 0 0
Ratnágiri ...	...		...	...	...	.....	.....		...	...	...	.....	.....
Total, Southern Circle ...	2,114		792	...	10	2,322 0 0	366,042		4,790	...	613	56,948 0 0	3,67,852 0 0
SIND CIRCLE.													
Sukkur ...	6,231	9,217	18,656	238	2,196	11,732 0 0	...	...	...	...	...	.....	.....
Shikarpur ...	1,532	2,580	14,239	217	7	3,778 0 0	...	...	...	...	...	.....	.....
Lárkána ...	3,679	2,394	11,214	364	13	6,252 0 0	...	...	...	...	...	.....	.....
Hyderabad ...	2,452	3,290	26,796	366	41	8,326 0 0	...	...	...	...	...	.....	.....
Kárachi ...	4,718	5,321	9,612	1,445	40	8,846 0 0	...	...	...	...	...	.....	.....
Total, Sind Circle ...	18,612	22,802	80,517	2,630	2,297	38,934 0 0	...	...	...	...	...	.....	.....
GRAND TOTAL ...	172,514		81,937	2,630	7,215	1,04,971 0 0	14,55,866		283,025	...	7,588	2,32,449 0 0	15,69,050 0 0

in the State Forests during 1917-1918.

Grazing Free—Number of Animals.													
By right under settlement.						During pleasure of Government, or otherwise han under Settlement.						Total Value of Fees at full rates.	Grand Total of Value at full rates.
Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28
					Rs. a. p.						Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	...	.....	33,120	127,846	...	...	...	93,043 0 0	93,043 0 0	99,359 0 0
...	...	...	...	...	.....	1,719	25,551	4,217	...	71	31,558 0 0	31,558 0 0	33,059 0 0
...	...	...	...	...	.....	14,986	88,068	...	...	...	73,775 0 0	73,775 0 0	74,056 0 0
...	...	...	...	...	.....	22,635	80,249	...	...	29	76,484 0 0	76,484 0 0	79,984 0 0
...	...	...	...	...	.....	13,974	60,237	...	...	...	55,116 0 0	55,116 0 0	68,238 0 0
...	...	...	...	...	.....	1,050	4,500	...	...	300	5,850 0 0	5,850 0 0	66,435 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,71,381 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	97,625 0 0
...	...	...	...	...	.....	87,484	386,451	4,217	...	400	3,35,826 0 0	3,35,826 0 0	6,90,137 0 0
...	...	...	...	...	.....	2,094	8,383	...	...	40	10,517 0 0	10,517 0 0	2,80,914 0 0
...	...	...	...	...	.....	915	16,701	80	...	110	2,220 0 0	2,220 0 0	1,93,753 0 0
...	...	...	...	...	.....	2,255	25,973	...	...	96	3,540 0 0	3,540 0 0	42,487 0 0
...	...	...	...	...	.....	21	125	...	...	...	146 0 0	146 0 0	1,84,930 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,35,991 0 0
...	...	...	...	...	.....	959	3,006	...	...	...	3,965 0 0	3,965 0 0	92,915 0 0
...	...	...	...	...	.....	6,244	54,188	80	...	246	20,388 0 0	20,388 0 0	9,30,990 0 0
...	...	...	...	...	.....	8,328		...	...	...	8,328 0 0	8,328 0 0	38,560 0 0
...	...	...	...	...	.....	6,878		...	...	...	6,878 0 0	6,878 0 0	36,400 0 0
...	...	...	...	...	.....	1,277		...	...	...	1,277 0 0	1,277 0 0	45,143 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	59,416 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	32,497 0 0
...	...	...	...	...	.....	17,745		...	...	...	17,745 0 0	17,745 0 0	67,927 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	1,24,459 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	.....
...	...	...	...	...	.....	34,228		...	...	...	34,228 0 0	34,228 0 0	4,04,402 0 0
1,067	3,791	...	...	29	2,020 0 0	8	504	...	...	410	279 0 0	2,299 0 0	14,031 0 0
325	1,080	...	...	14	441 0 0	...	10	...	...	460	119 0 0	560 0 0	4,338 0 0
776	2,153	...	...	1	795 0 0	56	25	...	26	195	139 0 0	934 0 0	7,186 0 0
5	237	...	...	...	93 0 0	90	274	1,144	1,782	1,407	3,298 0 0	3,391 0 0	11,717 0 0
383	313	...	...	8	406 0 0	245	536	200	105	2,790	1,139 0 0	1,545 0 0	10,390 0 0
2,556	7,574	...	...	52	3,755 0 0	399	1,349	1,344	1,913	5,262	4,974 0 0	8,729 0 0	47,662 0 0
2,556	7,574	...	...	52	3,755 0 0	570,343		5,641	1,913	5,908	3,95,416 0 0	3,99,171 0 0	20,73,191 0 0

FORM No. 18.—*Artificial Reproduction in the Bombay Presidency, including Sind, during the year 1917-1918.*

Division.	Kind of Plantation.	Area in Acres.				Expenditure during the Year.		Total expenditure from commencement.		Revenue during the year.	Total revenue from date of creation of plantation.	Remarks.
		On 1st July 1917.	Added during the year.	Excluded during the year.	Area on 30th June 1918.	Creation.	Upkeep.	Creation.	Upkeep.			
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.						Rs. a.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
Panch Mahals ...	Regular plantations .	4,889	...	*4,889	...	...	.....	...	...	...	...	*This is the area of cultural operation but has been shown under regular plantations and hence it is shown as excluded.
Surat ...	Do. ...	12	...	....	12	...	.....	...	50	...	...	
North Thána ...	Do. ...	95	50	...	145	1,077	2,944 0 0	2,157	6,494	...	25	
West do. ...	Do. ...	28	65	...	28	...	965 0 0	1,404	8,826	...	...	
East do. ...	Do. ...	6	...	...	71	337	6 0 0	337	6	...	...	
	Total ...	5,030	115	4,889	256	1,414	3,915 0 0	3,898	15,376	...	25	
Panch Mahals ...	Cultural operations .	225	1,698	225	1,698	410	.....	...	...	...		
Surat ...	Do. ...	1,410	...	...	1,410	962	138 0 0	...	138	...	...	
North Thána ...	Do. ...	1,302	527	...	1,827	638	.....	...	...	...	...	
West do. ...	Do. ...	1,627	2,338	1,627	2,338	148	.....	...	...	...	...	
East do. ...	Do. ...	...	229	...	229	165	.....	...	...	...	...	
North Násik ...	Do. ...	...	1,389	...	1,389	813	.....	...	...	...	...	
Násik Sub-Division.	Do. ...	212	4,995	...	5,207	2,174	.....	...	...	...	...	
	Total ...	4,776	11,176	1,852	14,100	5,058	138 0 0	...	138	...	...	Plus Rs. 6,746 spent for the purchase of Tarwad seed.
CENTRAL CIRCLE.	Total, Northern Circle	9,806	11,291	6,741	14,356	6,472	4,053 0 0	3,898	15,514	...	25	
East Khándesh ...	Regular plantations...	...	248	...	248	557	.....	...	...	...	...	
West do. ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
North do. ...	Do. ...	...	...	...	...	*38	.....	...	...	...	...	*Raising of Casurina seedlings and purchase of seeds.
Poona ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
Sátára ...	Do. ...	259	3	...	262	308	.....	...	...	...	...	
Kolába ...	Do. ...	109	2	1	110	217	467 0 0	2,472	2,684	572	2,480	
	Total ...	368	253	1	620	1,120	467 0 0	2,472	2,684	572	2,480	
East Khándesh ...	Other forms of artificial-reproduction.	81	122	81	122	22	.....	...	...	...	...	
West do. ...	Do. ...	435	519	435	519	272	.....	...	...	...	...	
North do. ...	Staking, Weeding and Mulching teak seedlings and protecting them with grass bunch in several ranges.	...	...	...	...	1,643	.....	...	...	...	...	
Poona ...	Do. ...	5,729	778	283	6,224	2,796	.....	...	...	...	...	
Sátára ...	Do. ...	1,750	640	1,750	640	1,163	.....	...	...	...	...	
Kolába ...	On Mulching, Weeding and shading operations.	...	...	...	...	403	.....	...	...	...	...	
	Total ...	7,995	2,059	2,549	7,505	6,299	.....	...	...	...	...	
SOUTHERN CIRCLE.	Total, Central Circle...	8,363	2,312	2,550	8,125	7,419	467 0 0	2,472	2,684	572	2,480	
Kánara Central...	Regular plantations .	171	9	...	180	621	23 0 0	2,211	11,660	...	...	
Do. Southern.	Do. ...	620	8	...	628	1,741	.....	71,223	...	312	18,543	
Do. Western...	Do. ...	206	150*	...	356	...	2,334 0 0	1,285	14,887	...	...	
Belgaum ...	Do. ...	6	...	...	6	...	.....	36	78	...	...	*Area previously omitted.
Dhárwár-Bijápur.	Do. ...	10	...	...	10	...	.....	43	...	20	536	
Ratnágiri ...	Do. ...	155	1	...	156	247	36 0 0	4,120	3,784	81	6,865	
	Total ...	1,168	168	...	1,336	2,609	2,393 0 0	78,918	30,409	413	25,944	
Kánara, Eastern .	Cultural operations ...	17,995	17,830	17,995	17,830	6,582	.....	6,582	...	...	...	
Dhárwár-Bijápur.	Do. ...	1,702	2,049	1,702	2,049	221	.....	221	...	...	...	
	Total ...	19,697	19,879	19,697	19,879	6,802	.....	6,803	...	...	...	
SIND CIRCLE.	Total, Southern Circle	20,865	20,047	19,697	21,215	9,412	2,393 0 0	85,721	30,409	413	25,944	
Sukkur ...	Regular plantations...	136	...	...	136	...	2,023 0 0	2,466	51,364	850	8,317	
Shikárpur ...	Do. ...	102	...	...	102	...	589 0 0	1,445	5,140	...	....	
Lárkána ...	Do. ...	13	1	...	14	...	288 0 0	54	2,148	...	...	
Hyderabad ...	Do. ...	31	2	...	33	33	1,182 0 0	1,039	12,826	351	4,584	
Karáchi ...	Do. ...	22	...	...	22	21	448 0 0	460	5,048	4	4	
	Total ...	304	3	...	307	54	4,530 0 0	5,464	76,526	1,205	12,905	
Sukkur ...	Cultural operations...	4,443	2,303	251	6,495	34	.....	970	...	...	...	
Shikárpur ...	Do. ...	3,198	782	264	3,716	10	32 0 0	206	71	...	...	
Lárkána ...	Do. ...	2,777	2,430	2,234	2,973	177	152 0 0	550	2,418	...	...	
Hyderabad ...	Do. ...	5,831	3,390	1,828	73,93	1,009	165 0 0	2,899	6,475	...	...	
Karáchi ...	Do. ...	14,663	4,113	1,161	17,615	798	.....	6,772	5,302	...	...	
	Total ...	30,912	13,018	5,738	38,192	2,028	349 0 0	11,397	14,266	...	...	
	Total, Sind Circle ...	31,216	13,021	5,738	38,499	2,082	4,879 0 0	16,861	90,792	1,205	12,305	
GRAND TOTAL.	Regular plantations...	6,870	539	4,890	2,519	5,197	11,305 0 0	90,752	1,24,995	2,190	41,354	
	Cultural operations ...	63,380	46,132	29,836	79,676	20,188	487 0 0	18,200	14,404	...	...	
	Total ...	70,250	46,671	34,726	82,195	25,385	11,792 0 0	1,08,952	,39,399	2,190	41,354	

FORM No. 19.

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division.	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.					SAWN OR SQUARED TIMBER.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C.ft.	C.ft.	C. ft.
NORTHERN CIRCLE.															
Reserved Forests.															
Panch Mahals	...	8	...	...	8	...	103	...	...	103	...	36	...	...	36
Surat	...	4	...	...	4	68	57	1	...	126	...	...	...	..	...
North Thána	...	16	...	...	16	45	322	...	...	367	...	...	...	...	...
West Thána	...	52	...	...	52	1	152	...	...	153	...	9	...	...	9
East Thána	...	83	...	...	83	5	232	...	...	237	...	87	...	...	87
South Násik	1	83	...	...	84	...	181	1	...	182	...	...		...	...
North Násik	...	...	...	...	...	...	53	2	...	55	...	...	...	...	...
Násik Sub-Division	...	...	...	...	...	...	3	...	...	3	...	...	...	...	...
Total, Reserved Forests ...	1	246	...	...	247	119	1,103	4	...	1,226	...	132	...	...	132
Protected Forests.															
North Thána	...	22	...	...	22	...	375	...	...	375	...	...	...	...	...
West Thána	...	...	...	...	...	...	14	...	...	14	...	...	...	...	...
East Thána	...	16	1	...	17	...	35	3	...	38	...	29	...	...	29
South Násik	...	11	...	...	11	...	21	...	...	21	..	...	...	...	...
Total, Protected Forests ...	...	49	1	...	50	...	445	3	...	448	...	29	...	...	29
Unclassed Forests.															
North Thána	...	1	...	...	1	...	29	...	...	29	...	...	...	...	...
South Násik	...	3	...	...	3	...	11	...	...	11	...	...	...	...	...
Total, Unclassed Forests ...	...	4	...	...	4	...	40	...	...	40	...	...	...	...	...
Leased Forest.															
Surat	104	114	...	76	294	...	...	...	...	...	46	...	...	...	46
Total, Northern Circle ...	105	413	1	76	595	119	1,588	7	...	1,714	46	161	...	...	207

during the year 1917-1918, and Agency of Exploitation.

Miscellaneous.					Total Timber.					Fuel.					Total Outturn.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	8	...	...	8	...	155	...	...	155	...	798	...	1,467	2,265	2,420
...	...	...	...	...	68	61	1	...	130	...	131	...	...	131	261
...	...	...	...	...	45	338	...	...	383	72	879	...	1,135	2,086	2,469
...	21	...	...	21	1	234	...	...	235	1	1,430	...	1,128	2,559	2,794
...	...	...	...	...	5	402	...	...	407	28	2,076	...	2,859	4,963	5,370
...	...	...	...	...	1	264	1	...	266	38	97	...	30	165	431
...	...	...	...	...	...	53	2	...	55	...	132	...	...	132	187
...	...	...	...	...	...	3	...	...	3	...	23	...	...	23	26
...	29	...	...	29	120	1,510	4	...	1,634	139	5,566	...	6,619	12,324	13,958
...	...	...	...	...	...	397	...	...	397	...	324	...	567	891	1,288
...	...	...	...	...	...	14	...	...	14	...	43	...	96	139	153
...	...	...	...	...	...	80	4	...	84	...	52	...	...	52	136
...	...	...	...	...	...	32	...	...	32	...	...	...	...	...	32
...	...	...	...	...	...	523	4	...	527	...	419	...	663	1,082	1,609
...	...	...	...	...	...	30	...	...	30	...	...	...	...	...	30
...	...	...	...	...	...	14	...	...	14	...	...	...	...	...	14
...	...	...	...	...	...	44	...	...	44	...	...	...	...	...	44
45	...	...	...	45	195	114	...	76	385	...	...	...	1,500	1,500	1,885
45	29	...	...	74	315	2,191	8	76	2,590	139	5,985	...	8,782	14,906	17,496

FORM No. 19.—*Outturn (of cubic feet, solid) of Timber and Fuel*

Division.	Timber in the rough: Logs.					Timber in the rough: Poles.					Sawn or Squared Timber.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
CENTRAL CIRCLE.															
East Khándesh	...	...	...	...	...	10	82	3	...	95	...	...	...	...	...
West Khándesh	10	...	...	...	10	...	195	2	...	197	..	...	...	...	...
North Khándesh	...	3	...	...	3	...	115	1	1	117	...	...	...	...	...
Kolába	...	24	...	...	24	...	138	3	...	141	...	...	...	...	...
Poona	1	4	...	...	5	18	297	1	...	316	...	...	...	...	...
Sátára	...	...	...	...	...	...	59	...	...	59	...	...	...	...	...
Total, Central Circle ...	11	31	...	...	42	28	886	10	1	925	...	...	...	...	...

during the year 1917-1918, and Agency of Exploitation—continued.

Miscellaneous.					Total Timber.					Fuel.					Total.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	10	82	3	...	95	9	272	16	...	297	392
...	...	...	...	...	10	195	2	...	207	...	161	...	10	171	378
...	...	...	...	...	...	118	1	1	120	2	433	9	34	478	598
...	41	...	...	41	...	203	3	...	206	48	1,382	...	373	1,803	2,009
...	...	...	...	...	19	301	1	...	321	98	384	...	...	482	803
...	...	...	...	...	...	59	...	...	59	202	1	...	100	303	362
...	41	...	...	41	39	958	10	1	1,008	359	2,633	25	517	3,534	4,542

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division. *(As readjusted on 1st February 1916 as per Government Order No. 11396 of 27th October 1915, Revenue Department).	Timber in the rough: Logs.					Timber in the rough: Poles.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SOUTHERN CIRCLE.										
Kánara, Northern	250	570	1	...	821	24	266	3	...	293
Kánara, Eastern	181	107	...	...	288	45	155	3	...	203
Kánara, Central	362	44	1	...	407	255	...	...	...	255
Kánara, Southern	49	42	12	...	103	...	...	...	...	...
Kánara, Western	88	77	9	...	174	207	...	...	...	207
Belgaum	82	67	...	...	149	76	23	4	...	103
Dhárwár-Bijápur	...	1	...	...	1	...	15	1	...	16
Ratnágiri	...	1	...	...	1	...	...	...	...	...
Total, Southern Circle ...	1,012	909	23	...	1,944	607	459	11	...	1,077

Sawn or Squared Timber.					Miscellaneous.		
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C.ft.	C.ft.	C. ft.		C. ft.	
85	...	...	...	85	..... Sandalwood— Kh. mds. lbs. 13 7 12 6 carts chips.	.....	.....
66	...	...	...	66	..... Sandalwood— Kh. mds. lbs. 31 17 21 20 rejected trees. 46 rejected billets. 20 carts chips. 640 roots and pieces.	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 23 0 0	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 9 4 11	.....	.....
6	...	...	...	6	58	1	.....
5	19	...	...	24	..... Sandalwood— Kh. mds. lbs. 24 6 18	.....	.....
...	...	...	...	...	..... Sandalwood— Kh. mds. lbs. 29 18 8 1,190 rejected pieces. 18 rejected chips carts.	.....	.....
...	...	...	...	...	.....	1	.....
162	19	...	...	181	58 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees, 46 rejected billets. 1,830 roots and pieces. 44 chips carts.	2	.....

Miscellaneous—*continued.*		Total Timber.		
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	359	836	4
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	13 7 12	13 7 12		
	6 carts chips.	6 carts chips.		
.....	.....	292	262	3
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	31 17 21	31 17 21		
	20 rejected trees.	20 rejected trees.		
	46 rejected billets.	46 rejected billets.		
	20 carts chips.	20 carts chips.		
	640 roots and pieces.	640 roots and pieces		
.....	.....	617	44	1
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	23 0 0	23 0 0		
.....	.....	49	42	12
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	9 4 11	9 4 11		
.....	59	359	78	9
.....	.....	163	109	4
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	24 6 18	24 6 18		
.....	.....	.....	16	1
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	29 18 8	29 18 8		
	1,190 rejected pieces.	1,190 rejected pieces.		
	18 rejected chips carts.	18 rejected chips carts.		
.....	1		2	.....
.....	60	1,839	1,389	34
	Sandalwood—	Sandalwood—		
	Kh. mds. lbs.	Kh. mds. lbs.		
	131 14 14	131 14 14		
	20 rejected trees,	20 rejected trees.		
	46 rejected billets.	46 rejected billets.		
	1,830 roots and pieces,	1,830 roots and pieces.		
	44 chips carts.	44 chips carts.		

during the year 1917-1918 and Agency of Exploitation—continued.

TOTAL TIMBER—*continued.*		FUEL.					
Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Total Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	1,199 Sandalwood— Kh. mds. lbs. 13 7 12 6 carts chips.	42	642	...	...	684	1,883 Sandalwood— Kh. mds. lbs. 13 7 12 6 carts chips.
.....	557 Sandalwood— Kh. mds. lbs. 31 17 21 20 rejected trees. 46 rejected billets. 20 carts chips 640 roots and pieces.	1	240	20	...	261	818 Sandalwood— Kh. mds. lbs. 31 17 21 20 rejected trees. 46 rejected billets. 20 carts chips. 640 roots and pieces.
.....	662 Sandalwood— Kh. mds. lbs. 23 0 0	138	662	...	...	800	1,462 Sandalwood— Kh. mds. lbs. 23 0 0
.....	103 Sandalwood— Kh. mds. lbs. 9 4 11	289	608	3	...	900	1,003 Sandalwood— Kh. mds. lbs. 9 4 11
.....	446	1,470	1,099	1	...	2,570	3,016
.....	276 Sandalwoods— Kh. mds. lbs. 24 6 18	2,688	2,102	1	...	4,791	5,067 Sandalwood— Kh. mds. lbs. 24 6 18
.....	17 Sandalwood— Kh. mds. lbs. 29 18 8 1,190 rejected pieces. 18 rejected chips carts.	10	328	4	...	342	359 Sandalwood— Kh. md. lbs. 29 18 8 1,190 rejected pieces. 18 rejected chips carts.
.....	2	...	2	...	...	2	4
.....	3,262 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 roots and pieces. 44 chips carts.	4,638	5,683	29	...	10,350	*13,612 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 rejected roots and pieces. 44 chips carts.

*This is exclusive of 300 thousand c. ft. of timber and 3,042 thousand c. ft. of fuel shown under privilege holders in chapter II, section V (*c*)—Outturn and sources of forest produce.

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division.	TIMBER IN THE ROUGH: LOGS.					TIMBER IN THE ROUGH: POLES.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SIND CIRCLE.										
Sukkur	13	51	...	...	64	10	40	2	...	52
Shikárpur	...	11	...	...	11	1	14	...	...	15
Lárkána	1	39	2	...	42	...	3	...	...	3
Hyderabad	...	16	...	...	16	...	2	...	...	2
Karáchi	...	16	...	...	16	4	30	...	...	34
Total, Sind Circle ...	14	133	2	...	149	15	89	2	...	106
GRAND TOTAL ...	1,142	1,486	26	76	2,730	769	3,022	30	1	3,822

Sawn or Square Timber.					Miscellaneous.		
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	.....	.....	.....
...	...	...	...	...	.....	.....	.....
...	33	...	...	33	.....	16	2
1	...	...	...	1	.....	.....	.....
...	...	...	...	...	.....	.....	.....
1	33	...	...	34	.....	16	2
209	213	...	...	422	103 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 roots and pieces. 44 carts chips.	88	2

Miscellaneous—*continued.*		Total timber.		
Right-holders.	Total.	Government.	Purchasers.	Free grantees.
20	21	22	23	24
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	23	91	2
.....	.....	1	25	.....
.....	18	1	91	4
.....	.....	1	18	.....
.....	.....	4	46	.....
.....	18	30	271	6
.....	193 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 roots and pieces. 44 carts chips.	2,223 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 roots and pieces. 44 carts chips.	4,809	58

during the year 1917-1918 and Agency of Exploitation—concluded.

Total Timber—*continued.*		Fuel.					Total.
Right-holders.	Total.	Government.	Purchaser.	Free grantees.	Right-holders.	Total.	Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	116	154	3,704	1	14	3,873	3,989
.....	26	2	788	3	...	793	819
.....	96	24	1,346	...	4	1,374	1,470
.....	19	12	9,477	...	...	9,489	9,508
.....	50	321	5,849	...	...	6,170	6,220
.....	307	513	21,164	4	18	21,699	22,006
77	7,167 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 rejected roots and pieces. 44 carts chips.	5,649	35,465	58	9,317	50,489	57,656 Sandalwood— Kh. mds. lbs. 131 14 14 20 rejected trees. 46 rejected billets. 1,830 rejected roots and pieces. 44 carts chips.

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1917-1918.*

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grants.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.		Rs.		Rs.		Rs.		Rs.		Rs.
State Forests.										
Apta Tembhurni	.....	...	...	19,075	...	...	...	...	.....	19,075
Bámboos	.....	5,568	...	22,630	...	...	...	8,000	.....	36,198
Chilhari bark	.....	...	...	607	...	...	...	...	.....	607
Gum	... ..	...	...	192	...	...	...	...	.....	192
Grass and grazing	.....	...	...	1,00,554	...	237	...	3,35,826	.....	4,36,617
Hirda fruit	.....	...	...	3,143	...	...	...	...	.....	3,143
Karvi	.....	...	...	2,441	...	...	...	...	.....	2,441
Mhowra seed and flowers	.....	...	...	890	...	...	...	...	.....	890
Palm tree leaves	.....	...	...	1,364	...	...	...	...	.....	1,364
Rosha grass	... ..	...	...	1,930	...	...	...	...	.....	1,930
Ghat bor	.....	...	...	202	...	...	...	...	.....	202
Sali wood	.....	...	...	136	...	...	...	...	.....	136
Tarwad	.....	...	...	20,398	...	...	...	...	.....	20,398
Thorns	... ..	...	...	960	...	...	...	...	.....	960
Stones	.....	...	...	249	...	...	...	...	.....	249
Babul Pods	... ..	...	...	238	...	...	...	...	.....	238
Manure	.....	...	...	447	...	...	...	...	.....	447
Royalty on Managanese ore	.....	...	...	1,459	...	...	...	...	.....	1,459
Do. Sandal wood	.....	48	...	.....	...	...	...	...	.....	48
Miscellaneous	.....	11	...	1,060	...	...	...	44,423	.....	45,494
Total, State Forests	.....	5,627	...	1,77,975	...	237	...	3,88,249	.....	5,72,088
Leased Forests (Surat).										
A'pta and Tembhurni leaves	.....	...	...	75	...	...	...	5,000	.....	75
Bamboos	.....	...	...	9,320	...	...	...	...	... ..	14,320
Mhowra seed	.....	145	...	1,463	...	...	...	...	.....	1,608
Grass and grazing	.....	...	...	806	...	...	...	...	.....	806
Rosha grass	.....	...	...	225	...	...	...	...	.....	225
Hirda	.....	...	...	6	...	...	...	...	... ..	6
Miscellaneous	.....	...	...	2,337	...	...	...	13,376	.....	15,713
Total, Leased Forests	.....	145	...	14,232	...	...	...	18,326	.....	32,753
Total, Northern Circle	.....	5,772	...	1,92,207	...	237	...	4,06,625	.....	6,04,841
CENTRAL CIRCLE.										
Hirda and Shikekái	.....	6,276	...	13,844	...	...	...	...	.....	20,120
Mhowra seed	.....	22,510	...	.....	...	...	...	...	.....	22,510
Rosha grass	.....	...	...	4,961	...	...	...	...	.....	4,961
Leaves, pods bark, etc.	.....	...	...	11,295	...	...	...	67	.....	11,362
Fruits	.....	...	...	6,147	...	...	...	2,365	.....	8,522
Earth, stone, murrum, etc.	.....	829	...	1,574	...	573	...	17	... ..	3,093
Grass and grazing	.....	12	...	3,20,014	...	...	...	22,381	.....	3,42,407
Bamboos	.....	...	...	13 910	8,056	97	2,540	21	10,596	14,028
Tarwad	.....	...	...	8,004	...	...	...	...	... ..	8,004
Miscellaneous	.....	33	...	1,367	...	64	...	601	.....	2,065
Total, Central Circle	.....	29,660	...	3,81,216	...	734	...	25,462	... ..	4,37,072
SOUTHERN CIRCLE.										
Bamboos	13,82,446	80,655	2,415,285	27,341	72,855	480	...	...	.....	1,08,476
Grass and grazing	... ..	127	...	62,268	...	3,238	...	...	.. ...	65,633
Harda, Shikekái, Honey, Wax, Cinnamon, Nux-vomica, Ramphal and Rampatri.	.....	169	...	27,574	...	...	...	...	.....	27,743
Quarrying fees	.....	...	..	5,908	...	572	...	...	.....	6,480
Tapping fees	.....	...	...	728	...	...	...	...	.....	728
Tali palm trees	.....	...	...	3,768	...	772	...	...	.....	4,540
Baini trees	.....	...	...	428	...	...	...	...	.....	428
Supari trees	.....	...	...	1	...	...	...	...	.....	1
Palm leaves	.....	...	....	937	...	...	...	...	.....	937
Shindoli leaves	.....	...	...	33	...	...	...	...	.....	33
Tumri leaves	.....	...	...	2,960	...	...	...	...	.....	2,960

FORM NO. 20.—*Outturn of Minor Forest Produce during the year 1917-1918*—continued.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By purchasers.		By free-grants.		By right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*continued.*		Rs.		Rs.		Rs.		Rs.		Rs.
Soppu (green leaves for manure).	...	...	.....	19	...	...	...	...	.....	19
Mangoes, Cashew fruits, Jack fruits and leaves.	...	...	.....	39	...	...	...	...	.....	39
Bori fruits	...	...	.....	13	...	...	...	...	.....	13
Tamarind fruits	...	...	.....	29	...	...	...	...	.....	29
Undi seeds	...	...	.....	16	...	...	...	...	.....	16
Hulgal seed	...	...	.....	881	...	...	...	...	.....	881
Divi-divi seed	...	...	.....	25	...	...	...	...	.....	25
Karanja seed	...	...	.....	331	...	...	...	...	.....	331
Babul pods	...	...	.....	537	...	...	...	...	.....	537
Wawdung	...	...	.....	55	...	...	...	...	.....	55
Dagadful	...	...	.....	20	...	...	...	...	.....	20
Taikila seed	...	...	.....	65	...	...	...	...	.....	65
Tarwad seed	...	...	.....	1	...	...	...	...	.....	1
Cocoa nut	...	...	.....	6	...	...	...	...	.....	6
Soap nut	...	...	.....	175	...	...	...	...	.....	175
Chandra pit	...	...	.....	200	...	...	...	...	.....	200
Prickly pear	...	...	.....	56	...	...	...	...	.....	56
Broom grass	...	...	.....	382	...	...	...	...	.....	382
Stakes	...	...	.....	88	...	42	...	...	.....	130
Creepers	...	...	.....	32	...	1	...	...	.....	33
Thorns	...	...	.....	347	...	57	...	...	.....	404
Gum	...	...	.....	723	...	...	...	...	.....	723
Bandurbi	...	...	.....	769	...	...	...	...	.....	769
Tarwad bark	72 tons.	7,936	.....	.....	...	...	...	...	.....	7,936
Shembi bark	...	...	.....	2	...	...	...	...	.....	2
Canes	...	...	.....	791	...	3	...	...	.....	794
Karvi	...	...	.....	224	...	...	...	...	.....	224
Skins and horns	...	...	.....	2	...	...	...	...	.....	2
Total, Southern Circle	...	88,387	.....	1,37,774	...	5,165	...	...	.....	2,31,826*
SIND CIRCLE.										
Vegetables, fruit and flowers.	...	485	.....	.....	...	...	...	...	.....	485
Karbi grass	1,952	122	.....	.....	...	...	...	...	.....	122
Rahuja garden	...	...	.....	170	...	...	...	...	.....	170
Babul seed	7	7	138 mds.	167	...	...	...	...	.....	174
Sar-reed	...	...	.....	2,499	...	...	...	...	.....	2,499
Lopping of Bahan Babul and Kandi branches.	...	...	.....	1,331	...	...	...	...	.....	1,331
Babul and Kandi pod	...	3,604	.....	10,138	...	...	...	...	.....	13,742
Sar and Kanh grass	...	...	.....	1,945	5 bundles.	3	...	...	.....	1,948
Pabun and Bih	...	...	.....	300	...	...	...	...	.....	300
Value of seed recovered from Maldars, etc.	...	...	Mds. Seers. 241—20	247	...	...	...	...	.....	247
Grazing	...	...	.....	38,934	...	4,973	...	3,755	.....	47,662
Mango fruit	...	...	.....	172	...	...	...	...	.....	172
Ber fruit	...	...	.....	8	...	...	...	...	.....	8
Date palm	...	...	.....	6	...	...	...	...	.....	6
Damage to coppice shoots	...	...	.....	180	...	...	...	...	.....	180
Earth	...	...	.....	9	...	...	...	...	.....	9
Lac	...	...	.....	15,055	...	...	...	...	.....	15,055
Jaw brushwood	...	...	.....	6	80 bundles.	3	...	...	.....	9
Kamo creeper	...	...	.....	72	...	...	...	...	.....	72
Total, Sind Circle	...	4,218	.....	71,239	...	4,979	...	3,755	.....	84,191
GRAND TOTAL	...	1,28,537	.....	7,82,436	...	11,115	...	4,35,842	.....	13,57,930

*This is exclusive of Rs. 56,540 on account of Sandalwood shown under Government Agency and Rs. 15,000, Rs. 1,80,000 and Rs. 3,00,387 on account of Bamboos, Minor Forest Produce and Grazing shown under Privilege holders in the statement in Chapter II, Section V (*c*) outturn and sources of forest produce.

FORM No. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1917-1918.*

Name of Division.	Balance at commencement of the year in Forest and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forest and Sale Depôts.
1	2	3	4	5	6
NORTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Surat	34,202	2,63,429	297,631	1,99,226	98,405
North Thána	14,943	45,456	60,399	38,021	22,378
West Thána	807	649	1,456	1,456	...
East Thána	...	4,570	4,570	4,570	...
South Násik	...	972	972	362	610
Total, Timber ...	49,952	3,15,076	365,028	2,43,635	1,21,393
Fuel.					
Surat	6,264	42	6,306	782	5,524
North Thána	2,803	72,190	74,493	17,933	56,560
West Thána	...	710	710	710	...
East Thána	...	27,880	27,880	27,880	...
South Násik	15,680	38,010	53,690	35,565	18,125
Total, Fuel ...	24,247	1,38,832	163,079	82,870	80,209
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction ...	...	(a) 689	689	559	130
Panch Mahâls ..	60	(a) 1,371	1,361	(b) 1,291	70
Surat ...	1,905	2,881	4,786	3,333	1,453
North Thána ...	...	1,813	1,813	1,813	...
*West Thána ...	1,152	4,743	5,895	114	5,781
East Thána ..	1,541	...	1,541	1,541	...
South Násik ...	...	2	2	2	...
North Násik ...	...	(a) 3,267	3,267	3,257	10
Násik Sub-Division ...	...	(a) 1,496	1,496	1,166	330
Total, Minor Forest Produce ..	4,658	16,192	20,850	(1) 1,038 (2) 60 (3) 5,772 (4) 6,196	*7,774
Total, Northern Circle ...	C. ft. 74,199 + Rs. 4,658	C. ft. 453,908 + Rs. 16,192	C. ft. 528,107 + Rs. 20,850	C. ft. 326,505 + Rs. 13,076	C. ft 201,602 + Rs. 7,774
CENTRAL CIRCLE.					
Timber.					
East Khándesh	323	10,465	10,788	2,484	8,304
West Khándesh	...	10 309	10,309	10,309	...
North Khándesh	...	135	135	127	8
Kolaba	116	133	249	249	...
Poona	323	18,679	19,002	16,710	2,292
Total ...	762	39,721	40,483	29,879	10,604
Firewood.					
East Khándesh	...	9,220	9 220	...	9,220
North Khándesh	29	1,650	1,679	1,611	68
Kolaba	10,517	48,285	58,802	42,788	16,014
Poona	10,840	97,980	108,820	96,629	12,191
Sátara	32,717	201,962	234,679	127,379	107,300
Total ...	54,103	350,097	413,200	268,407	144,793
Mohowra.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
West Khándesh	1,91,567	4,15,908	607,475	578,353	29,122
North Khándesh	39,717	70,244	109,961	90,444	19,517
Total ...	2,31,284	486,152	717,436	6,68,797	48,639
Minor Forest Produce.					
West Khándesh	...	19,450	19,450	19,450	...
North Khándesh	...	3,060	3,060	3,060	...
Kolaba	...	12	12	12	...
Poona	...	6,310	6,310	6,310	...
Sátara	3	828	828	823	...
Total ...	3	29,660	29,660	29,660	...
Total, Central Circle ...	C. ft. 54,865 Lbs. 2,31,284 Rs. 3	C. ft. 393,818 Lbs. 486,152 Rs. 29,660	C. ft. 453,693 Lbs 7,17,436 Rs. 29,663	C. ft. 298,286 Lbs. 668,797 Rs. 29,663	C. ft. 155,307 Lbs. 48,639 Rs. ...

Name of Division.	Balance at commencement of the year in Forest and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forest and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Kánara, Northern Division—					
Teak	239,692	213,921	453,613	267,658	185,955
Blackwood	54,945	22,108	77,053	46,687	30,366
Junglewood	53,536	123,064	176,600	60,814	115,786
Total ...	348,173	359,093	707,266	375,159	332,107
Kánara, Eastern Division—					
Teak	88,126	249,138	337,264	172,322	164,942
Blackwood	2,122	2,772	4,894	2,915	1,979
Junglewood	36,619	39,877	76,496	23,420	53,076
Tota ...	126,867	291,787	418,654	198,657	219,997
Kánara, Central Division—					
Teak	11,374	26,253	37,627	18,087	19,540
Blackwood	4,753	9,956	14,709	9,512	5,197
Junglewood	87,395	580,197	667,592	261,121	406,471
Total ...	103,522	616,406	719,928	288,720	431,208
Kánara, Southern Division—					
Teak	4,545	11,428	15,973	3,123	12,850
Blackwood	.....	...	...	..	...
Junglewood	4,423	37,998	42,411	2,601	39,810
Total ...	8,968	49,416	58,384	5,724	52,660
Kánara, Western Division—					
Teak	17,485	84,846	102,331	89,164	13,167
Blackwood	525	3,407	4,232	2,828	1,404
Junglewood	69,783	270,952	340,735	144,455	196,280
Total ...	88,093	359,205	447,298	236,447	210,851
Belgaum Division—					
Teak	7,149	36,767	43,916	35,593	8,323
Blackwood	807	5,131	5,938	3,193	2,745
Junglewood	7,078	120,924	128,002	115,756	12,246
Total ...	15,034	162,822	177,856	154,542	23,314
Dhárwár—Bijápur Division—					
Junglewood	.....	25	25	...	25
Total ...	.....	25	25	...	25
Total, Southern Circle—					
Teak	368,371	622,353	990,724	585,947	404,777
Blackwood	63,452	43,374	106,826	65,135	41,691
Junglewood	258,834	1,173,027	1,431,861	608,167	823,694
Total Timber ...	690,657	1,838,754	2,529,411	1,259,249	1,270,162
Fuel.					
Kánara, Northern Division ...	.....	41,891	41,891	27,301	14,590
Kánara, Eastern Division ...	.....	1,225	1,225	1,225	...
Kánara, Central do. ...	.....	138,435	138,435	6,480	131,955
Kánara, Southern do. ...	148,960	289,289	438,249	267,865	170,384
Kánara, Western do. ...	199,891	1,469,714	1,669,605	1,103,523	566,082
Belgaum Division	769,577	2,687,892	3,457,469	2,952,284	505 185
Dhárwár-Bijápur Division ...	475	9,830	10,305	8,873	1,432
Total ...	1,118,903	4,638,276	5,757,179	4,367,541	1,389,638

(1) Difference bet ween estimate and actuals, (2) used for the building, (3) actually realised and (4) Price paid for tarwad seed for which bills have been sent.

(a) These sums include Rs. 6,746 on account of the price of 605 maunds of tarwad seed purchased; out of which 422 Maunds have been sent out to other Departments the price which will be credited by book transfer during the current year. Out of the remainder 130 maunds have been utilized in sowing in the circle and 53 maunds is the balance at the close of the year.

*This is estimated.

FORM No. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1917-1918*—concluded.

Name of Division.	Balance at commencement of the year in Forest and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forest and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE —*continued.*	Rs.	Rs.	Rs.	Rs.	Rs.
Bamboos.					
Kánara, Northern Division ...Value.	2,156	16,978	19,134	19,134	...
Kánara, Eastern Division ... ,,	...	759	759	759	...
Kánara Central Division ... ,,	...	20,622	20,622	...	20,622
Kánara Southern Division ... ,,	...	9,000	9,000	...	9,000
Kánara, Western Division ... ,,	8,073	17,544	25,617	4,945	20,672
Belgaum Division ... ,,	...	55,817	55,817	55,817	...
Dhárwár-Bijápur Division ... ,,	...	...	...	...	...
Total ...Value.	10,229	1,20,720	130,949	80,655	50,294
Sandalwood.					
Kánara, Northern Division ...Value.	...	5,984	5,984	5,984	...
Kánara, Eastern Division ... ,,	...	13,947	13,947	13,947	...
Kánara, Central Division ... ,,	...	9,581	9,581	9,581	...
Kánara, Southern Division ... ,,	15	3,996	4,011	3,961	50
Belgaum Division ... ,,	405	11,026	11,431	9,861	1,570
Dhárwár-Bijápur Division ... ,,	100	13,563	13,663	13,206	457
Total ...Value.	520	58,097	58,617	56,540	2,077
Minor Forest Produce.					
Kánara, Eastern Division ...Value.	297	1,195	1,492	169	1,323
Belgaum Division ,,	16	114	130	127	3
Dhárwár-Bijápur Division ... ,,	...	8,366	8,363	7,936	430
Total ...Value.	313	9,675	9,988	8,232	1,756
Drift and waif wood and confiscated Forest Produce.					
Kánara, Northern Division ...Value.	...	1	1	1	...
Kánara, Eastern Division ... ,,	...	5	5	5	...
Kánara, Central Division ... ,,	...	137	137	67	70
Kánara, Southern Division ... ,,	...	44	44	44	...
Kánara, Western Division ... ,,	...	27	27	27	...
Belgaum Division ... ,,	...	129	129	99	30
Dhárwár-Bijápur Division ... ,,	...	99	99	99	...
Ratnágiri Division ... ,,	...	10	10	10	...
Total ...	...	452	452	352	100
Total, Southern Circle ...	C. ft. 1,809,560 + Rs. 11,062	C. ft. 6,477,030 + Rs. 188,944	C. ft. 8,286,590 + Rs. 200,006	C. ft. 5,626,790 + Rs. 145,779	C. ft. 2,659,800 + Rs. 54,227

Name of Division.	Balance at commencement of the year in Forest and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forest and Sale Depôts.
1	2	3	4	5	6
SIND CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Sukkur	373	23,133	23,506	23,491	15
Shikarpur	.....	635	635	518	117
Lárkána	93	1,008	1,101	1,069	32
Hyderabad	242	772	1,014	928	86
Karáchi	2,643	4,395	7,038	4,395	2,643
Total ...	3,351	29,943	33,294	30,401	2,893
Fuel.					
Sukkur	283	154,301	154,584	154,584	...
Shikarpur	.....	1,851	1,851	1,851	...
Lárkána	5,000	23,534	28,534	17,284	11,250
Hyderabad	36,968	12,198	49,166	32,019	17,147
Karáchi	13,400	320,618	334,018	7,490	326,528
Total ...	55,651	512,502	568,153	213,228	354,925
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Sukkur ...Value.	175	602	777	742	35
Shikarpur ... ,,	88	75	163	137	26
Lárkána ... ,,	79	873	952	950	2
Hyderabad ... ,,	32	1,316	1,348	1,047	301
Karáchi ... ,,	180	1,237	1,417	1,345	72
Total ...Value.	554	4,103	4,657	4,221	436
Total, Sind Circle ...	C. ft. 59,002 + Rs. 554	C. ft. 542,445 + Rs. 4,103	C. ft. 601,447 + Rs. 4,657	C. ft. 243,629 + Rs. 4,221	C. ft. 357,818 + Rs. 436
GRAND TOTAL ...	C. ft. 1,997,626 Lbs. 2,31,234 Rs. 16,277	C. ft. 7,872,201 Lbs. 4,86,152 Rs. 2,38,899	C. ft. 9,869,827 Lbs. 717,436 Rs. 2,55,176	C. ft. 6,495,210 Lbs. 6,88,797 Rs. 1,92,739	C. ft. 3,374,617 Lbs. 48,639 Rs. 62,437

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1917-1918.*

Description of Timber and other Forest Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Timber	...	49,952	47,892	...	121,393	1,21,556	73,664	...	
Fuel	...	24,247	1,945	...	80,209	7,567	5,622	...	
Minor Forest Produce ...	...	.....	4,658	...	.....	7,774	3,116	...	
Total, Northern Circle ...	...	.....	54,495	...	.....	1,36,897	82,402	...	Net difference in favour of the year, Rs. 82,402.
CENTRAL CIRCLE.									
Timber	400	762	152	6,130	10,604	4,128	3,976	...	
Firewood	...	54,103	3,639	...	144,793	10,480	6,841	...	
Mhowra	...	Lbs. 231,284	5,534	...	Lbs. 48,639	1,121	...	4,413	
Seeds	...	Kh.Mds.Lbs. 16 15 4	...	...	Kh.Mds.Lbs. 98 13 1	...	...	...	
Total, Central Circle ...	...	.....	9,325	...	.....	15,729	10,817	4,413	Net difference in favour of the year, Rs 6,404.

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1917-1918*—concluded.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Timber.									
Teak	140,891	368,371	7,75,611	115,027	404,777	6,52,437	...	1,23,174	
Blackwood	5,366	63,452	56,604	7,026	41,691	41,667	...	14,937	
Junglewood	40,560	258,834	2,69,038	166,921	823,694	8,48,574	5,79,536	...	
Total, Timber ...	186,817	690,657	11,01,253	289,044	1,270,162	15,42,678	5,79,536	1,38,111	
Fuel	...	1,118,903	71,855	...	1,389,638	1,22,826	50,971	...	
Bamboos ... ... Value.	...	...	10,229	...	...	50,294	40,065	...	
Sandalwood ... ... Value.	...	...	520	...	...	2,077	1,557	...	
Minor Forest Produce ... Value.	...	...	313	...	...	1,756	1,443	...	
Confiscated Forest Produce „	...	...	...	...	...	100	100	...	
Total, Southern Circle ...	...	...	11,84,170	...	...	17,19,731	6,73,672	1,38,111	Net difference in favour of the year, Rs. 5,35,561.
SIND CIRCLE.									
Timber	846	3,351	500	474	2,893	490	...	10	
Fuel	...	55,651	1,420	...	354,925	23,011	21,591	...	
Minor Produce	...	...	554	...	...	436	...	118	
Total, Sind Circle ...	...	...	2,474	...	...	23,937	21,591	128	Net difference in favour of the year, Rs. 21,463.
GRAND TOTAL ...	...	...	12,50,464	...	...	18,96,294	7,88,482	1,42,652	Net difference in favour of the year, Rs. 6,45,830.

FORM No. 23.—*Abstract showing the value of Live and Dead Stock for the year 1917-18.*

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Bullocks	3	294	3	294	...	...	
Dead Stock.							
Buildings	289	3,14,510	299	3,35,581	21,071	...	
Copying machines	8	...	8	...	...	...	
Cyclostyles	7	...	7	...	...	...	
Carts	7	133	7	133	...	...	
Hay presses	111	...	12	...	...	...	40 sent to Mesopotamia, 2 sent to Military Department, Aurangabad, 57 sent to Southern Circle and Central Circle and Central Provinces, 2 sold by auction being unrepairable.
Steel wire ropes	12	...	12	...	...	...	
Typewriters, Empire	3	600	1	200	...	400	
Typewriters, Remington	6	...	6	...	...	...	
Typewriter, Hammond	...	...	3	960	960	...	
Tents and rahutis	34	4,400	34	4,400	...	...	
Fowler train	1	31,578	1	31,578	...	...	
Saw Sharpening machine	1	300	1	300	...	...	
Clips	38	...	38	...	...	...	
Small spanners	6	...	6	...	...	...	
Large do.	2	...	2	...	...	...	
Big bolts	9	...	9	...	...	...	
Office furniture, etc.	...	33,837	...	36,684	2,847	...	
Total, Dead Stock ...	534	3,85,358	446	4,09,836	24,878	400	
TOTAL, NORTHERN CIRCLE ...	537	3,85,652	449	4,10,130	24,878	400	Net Difference in favour of the year —Rs. 24,478.
CENTRAL CIRCLE.							
Dead Stock.			*Live Stock*—Nil.				
Buildings	148	1,71,924	156	1,88,889	16,965	...	
Tents	8	2,135	7	2,010	...	125	
Rahutis (Kabul Pal Fan)	27	2,170	27	2,168	...	2	
Tools, plant and office furniture ...	...	34,339	...	34,527	188	...	
Remington Typewriters	7	...	7	...	...	...	
Empire do.	4	...	4	...	...	...	
Copying machines	5	...	5	...	...	...	
Cyclostyles	5	...	4	...	...	...	
Yestograph duplicator	...	...	1	...	...	...	
Boat with fittings	1	1,371	1	1,371	...	...	
Boon furniture	...	650	...	600	...	50	
Total, Dead Stock ...	205	2,12,589	212	2,29,565	17,153	177	
Total, Central Circle ...	205	2,12,589	212	2,29,565	17,153	177	Net difference in favour of the year —Rs. 16,976.

FORM No. 23.—*Abstract showing the value of the Live and Dead Stock for the year 1917-18*—concluded.

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
SOUTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Buffaloes and bullocks ...	60	2,945	64	3,207	262	...	
Total, Live Stock ...	60	2,945	64	3,207	262	...	
Dead Stock.							
Buildings	365	2,96,334	368	2,97,241	907	...	
Tents	9	1,909	9	1,800	...	109	
Rahutis	22	1,838	22	1,169	...	669	
Tools, plant and office furniture ...	...	46,343	...	53,094	6,751	...	
Typewriters, Remington ...	1	...	1	...	...	...	
Do. Empire	2	...	2	...	...	...	
Do. Hammond ...	7	...	7	...	...	...	
Cyclostyles	8	...	8	...	...	...	
Carts	39	2,068	42	2,348	280	...	
Guns	4	133	5	170	37	...	
Bicycle	3	379	3	379	...	...	
Iron safes	10	675	10	675	...	...	
Monorail materials	...	25,382	...	16,611	...	8,771	
Saw-mills (Steam power) ...	5	85,663	6	1,21,241	35,578	...	
Distillation Plant	1	910	1	865	...	45	
Windlass	1	1,140	1	1,140	...	...	
Crab Winch	1	47	1	47	...	...	
Total, Dead Stock ...	478	4,62,821	486	4,96,780	43,553	9,594	
Total, Southern Circle ...	538	4,65,766	550	4,99,987	43,815	9,594	Net difference in favour of the year—Rs. 34,221.
SIND CIRCLE.							
Live Stock.							
Bullocks	11	246	9	225	...	21	
Camels	31	1,360	34	1,360	...	...	
Total, Live Stock ...	42	1,606	43	1,585	...	21	
Dead Stock.							
Buildings	92	47,743	89	50,182	2,439	...	
Tents	14	2,954	14	2,954	...	...	
Stores, Mathematical ...	724	5,785	798	5,855	70	...	
Tools, plant and office furniture ...	3,191	15,717	3,160	15,980	263	...	
Remington Typewriters ...	6	...	8	...	...	...	
Copying machine	1	...	1	...	...	...	
Iron safes	1	201	1	201	...	...	
Bicycle	...	...	2	230	230	...	
Total, Dead Stock ...	4,029	72,400	4,073	75,402	3,002	...	
Total, Sind Circle ...	4,071	74,006	4,116	76,987	3,002	21	Net difference in favour of the year—Rs. 2,981.
GRAND TOTAL ...	...	11,38,013	...	12,16,669	88,848	10,192	Net difference in favour of the year—Rs. 78,656.

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Panch Mahâls Division.	West Thâna Division.	North Thâna Division.	East Thâna Division.
NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	34 4 0	1,963 3 4	18,780 0 0	1,321 4 7
b. Firewood and charcoal... ...	.....	10 0 0	141 0 0	247 6 0	1,092 4 3
c. Bamboos	.....	.....	113 15 5	1,802 8 0	502 5 8
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	.....	.....	10 8 0	.....
Total, I ...	.....	44 4 0	2,218 2 9	20,840 6 0	3,815 14 6
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	1,46,859 7 1	2,59,899 3 11	9,33,080 15 6	3,28,945 8 4
b. Firewood and charcoal... ...	.....	2,460 0 10	2,548 12 11	1,510 5 0	324 0 0
c. Bamboos	.....	4,508 6 5	2,201 12 0	10,420 6 6	1,062 2 0
d. Grazing and fodder grass ...	.....	9,415 3 6	1,950 10 10	7,710 15 0	9,451 10 0
e. Other minor produce	.....	10,128 2 1	5,172 14 9	1,602 1 6	7,227 12 0
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees	.....	.....	.....	.....	.....
Total, II ...	.....	5,72,871 3 11	2,71,773 6 5	9,54,324 11 6	3,47,011 0 4
III.—Drift and Waif Wood and Confiscated Forest Produce...	.....	0 14 0	10 4 0	17 14 0	15 13 0
Total, III ...	.....	0 14 0	10 4 0	17 14 0	15 13 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	1,096 13 3	75 0 0	7 1 0
Total, IV ...	.....	.....	1,096 13 3	75 0 0	7 1 0
V.—Miscellaneous—					
a. Fines and forfeitures	.....	611 9 6	3,335 0 9	.....	5,298 1 0
b. Refunds	354 14 6	116 1 5	877 1 7	.....	43 13 6
c. Other sources ...	589 6 0	13,751 7 6	3,787 3 2	6,231 0 11	4,438 14 6
Total, V ...	944 4 6	14,479 2 5	7,999 5 6	6,231 0 11	9,780 13 0
Grand Total, Revenue.	944 4 6	1,87,395 8 4	2,83,097 15 11	9,81,489 0 5	3,60,630 9 10
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	244 0 0	4 8 0	—345 11 8	5,395 15 9	1,321 1 0
b. Firewood and charcoal... ...	.....	.....	46 2 0	.....	1,842 7 3
c. Bamboos	.....	.....	1,931 0 0	2,874 13 6	1,157 4 5
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	46 14 6	1 4 0	.....	.....
Total, A-I ...	244 0 0	51 6 6	1,632 10 4	8,270 13 3	4,320 12 8
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	.....	2,460 3 2	3,467 14 6	15,457 8 3	2,678 2 5
Total, A-II ...	.....	2,460 3 2	3,467 14 6	15,457 8 3	2,678 2 5
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	2 8 6	2 14 0	6 0 0
Total, A-III ...	.....	.....	2 8 6	2 14 0	6 0 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1917-1918.

Surat Division.	North Násik Division.	South Násik Division.	Násik Sub-Division.	Working Plans Division.	Famine Fodder Division.	Total for the forest year 1917-1918.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1,13,986 3 5	.....	.....	20 0 0	.....	.....	1,36,104 15 4
190 4 0	.....	848 8 9	.....	.....	.....	3,429 7 0
3,149 6 0	.....	.....	.....	.....	.....	5,568 3 1
.....	.....	2 8 0	46 0 0	.....	.....	48 8 0
145 2 9	.....	.....	.....	.....	.....	155 10 9
1,17,471 0 2	.....	851 0 9	66 0 0	.....	.....	1,45,306 12 2
1,12,185 11 9	18,683 4 0	1,10,083 13 0	1,502 0 0	.....	.....	19,10,739 15 7
700 10 0	8,226 7 3	1,913 2 6	4,520 15 0	.....	.....	22,204 5 6
9,319 11 2	−11 8 0	4,429 15 5	19 6 0	.....	.....	31,950 3 6
806 0 0	25,877 13 0	18,449 3 6	27,698 4 6	.....	.....	1,01,359 12 4
5,165 10 9	9,744 14 9	4,303 12 6	15,461 13 6	.....	.....	58,897 1 10
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
1,28,177 11 8	62,520 15 0	1,39,269 14 11	49,202 7 0	.....	.....	21,25,151 6 9
34 14 0	155 7 9	152 10 0	71 5 3	.....	.....	459 2 6
34 14 0	155 7 9	152 10 0	71 5 3	.....	.....	459 2 0
51 14 8	.....	.....	.....	.....	.....	51 14 8
.....	.....	.....	.....	.....	.....	1,178 14 3
51 14 8	.....	.....	.....	.....	.....	1,230 12 11
293 2 0	841 2 0	1,135 0 0	153 0 0	.....	.....	11,661 15 3
293 8 9	0 10 8	8 8 0	.....	.....	.....	1,694 10 5
1,764 8 10	3,461 10 6	1,795 3 11	4,511 5 1	0 12 0	.....	40,331 8 5
2,346 3 7	4,303 7 2	2,938 11 11	4,664 5 1	0 12 0	.....	53,688 2 1
2,48,081 12 1	66,979 13 11	1,43,212 5 7	54,004 1 4	0 12 0	.....	23,25,336 3 11
66,044 4 8	.....	161 8 0	.....	.....	.....	72,825 9 9
18 3 0	.....	672 10 0	.....	.....	.....	2,579 6 3
4,988 8 0	.....	.....	.....	.....	.....	10,951 9 11
.....	.....	.....	.....	.....	.....	.....
1,327 5 2	.....	95 0 0	.....	.....	.....	1,470 7 8
72,378 4 10	.....	929 2 0	.....	.....	.....	87,827 1 7
3,620 2 0	299 5 0	1,914 12 3	4 1 0	.....	.....	29,902 0 7
3,620 2 0	299 5 0	1,914 12 3	4 1 0	.....	.....	29,902 0 7
1 8 0	.....	.....	.....	.....	.....	12 14 6
1 8 0	.....	.....	.....	.....	.....	12 14 6
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Heads.	Direction.	Panch Mahâls Division.	West Thâna Division.	North Thâna Division.	East Thâna Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	814 1 7	.....	.....
Total, A-V ...	.....	.....	814 1 7	.....	.....
VI.—Live-Stock, Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	1,361 4 7	76 14 0	59 10 0	213 0 0	150 13 9
Total, A-VI ...	1,361 4 7	76 14 0	59 10 0	213 0 0	150 13 9
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	.....	4,144 0 6	2,505 13 8	2,006 7 3
b. Buildings	.....	492 15 0	1,590 13 11	16,702 8 10	900 13 5
c. Other works	.....	544 12 9	31 2 0	1,730 0 8	139 13 6
Total, A-VII ...	.....	1,037 11 9	5,766 0 5	20,538 7 2	3,047 2 2
VIII.—Organization, Improvement and Extension of Forests—					
a. Demarcation	.....	15 8 0	201 9 3	377 2 4	108 1 3
b. Cost of Forest Settlements and Compensation for land and rights	.....	29 2 0	1,848 11 7	2,631 12 5	.....
c. Surveys	.....	.....	.....	.....	.....
d. Working-plans ...	33 5 0	50 14 6	415 4 0	197 13 1	250 12 8
e. Sowing and planting...	789 9 9	1,710 15 3	1,112 10 0	4,408 7 11	507 13 6
f. Protection from fire...	.....	3,116 2 5	3,537 2 6	3,200 6 0	4,139 11 0
g. Other works	.....	.....	25 0 0	58 5 0	.....
Total, A-VIII ...	822 14 0	4,952 10 2	7,140 5 4	11,174 1 9	5,006 6 5
IX.—Miscellaneous—					
a. Law charges	.....	.....	.....	.....	.....
b. Grain Compensation ...	19 0 0	173 13 3	513 13 2	541 6 3	188 3 7
c. Other charges ...	5,728 1 0	2,149 13 4	1,613 4 0	1,616 13 6	1,936 13 0
Total, A-IX ...	5,747 1 0	2,323 10 7	2,127 1 2	2,158 3 9	2,125 0 7
TOTAL, A.—CONSERVANCY AND WORKS	8,175 4 4	10,902 8 2	21,010 3 10	57,815 0 2	17,934 6 0
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators	19,135 7 9	.....	.....	.....	.....
b. Superior Officers ...	.....	7,684 14 9	11,771 8 3	14,815 3 6	15,503 5 4
c. Subordinate Forest and Depôt Establishments	280 0 0	21,367 0 6	32,605 1 5	27,075 4 3	27,332 4 2
d. Office Establishments.	7,618 6 9	5,705 13 10	6,783 12 7	6,106 12 8	6,143 6 11
e. Deputation and Special Allowances...	3 9 9	602 9 7	835 4 3	3 6 4	854 11 3
f. Grain Compensation Allowance	223 7 11	1,031 8 9	4,146 5 9	3,507 13 9	3,963 8 0
Total, B-I ...	27,261 0 3	36,392 4 5	55,522 0 3	51,508 10 6	53,792 3 8
II.—Travelling Allowances—					
a. Conservators	3,191 12 8	.....	.....	.....	.....
b. Superior Officers ...	.....	1,620 0 0	1,869 3 9	2,435 15 10	2,435 5 6
c. Subordinate Forest and Depôt Establishments	.....	2,600 9 0	3,524 12 4	3,207 5 1	2,322 12 9
d. Office Establishments.	1,120 5 0	586 4 8	545 14 7	1,051 15 9	619 6 8
e. Forest School (Dehradun)	58 9 0	.....	.....	175 0 1	207 4 2
f. Plague allowances ...	42 8 0	88 0 0	7 8 0	72 6 8	82 9 0
Total, B-II ...	4,413 2 8	4,894 13 8	5,947 6 8	6,952 11 5	5,717 6 1
III.—Contingencies—					
a. Stationery	20 15 6	279 12 2	427 4 6	377 14 3	411 1 1
b. Carriage of Tents and Records	251 12 0	299 4 5	286 12 3	295 3 9	325 3 9
c. Rents, rates and taxes	1,050 4 8	118 0 0	1 2 0	879 11 6	855 5 4
d. Pay of Police Guards ...	.....	.....	.....	.....	.....
e. Official postage ...	489 2 0	896 2 6	964 2 0	1,096 8 0	962 5 0
f. Sundries	1,010 12 3	443 10 2	470 14 6	499 11 0	515 11 5
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	2,822 14 5	2,036 13 3	2,150 3 3	3,149 0 6	3,069 10 7
TOTAL, B—ESTABLISHMENTS	34,497 1 3	43,323 15 4	63,619 10 2	61,610 6 5	62,579 4 4
GRAND TOTAL OF EXPENDITURE	42,672 5 7	54,226 7 6	84,629 14 0	1,19,425 6 7	80,513 10 4

different Divisions for the forest year 1917-1918—contd.

Surat Division.	North Násik Division.	South Násik Division.	Násik Sub-Division.	Working Plans Division.	Direction Famine Fodder Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
17,953 8 5	20 15 8	.....	.....	.....	.....	18,788 9 8
17,953 8 5	20 15 8	.....	.....	.....	.....	18,788 9 8
.....	.....	.....	.....	.....	.....	.....
110 8 6	.....	.....	.....	.....	.....	110 8 6
721 4 6	114 0 0	2 8 0	147 13 0	.....	.....	2,847 3 10
831 13 0	114 0 0	2 8 0	147 13 0	.....	.....	2,957 12 4
13,623 11 7	.....	4,642 8 7	.....	.....	.....	27,522 9 7
5,120 0 11	5 0 0	1,536 14 9	.....	.....	.....	25,949 2 10
963 1 1	.....	.....	.....	.....	.....	3,408 14 0
19,706 13 7	5 0 0	6,179 7 4	.....	.....	.....	56,880 10 5
94 10 6	98 11 0	525 11 1	83 12 0	.....	.....	1,505 1 5
45 5 6	.....	.....	.....	.....	.....	4,754 15 6
.....	.....	.....	.....	.....	.....	.....
85 13 3	70 4 6	434 3 0	21 12 0	15 1 0	.....	1,575 3 0
1,138 6 9	4,080 3 0	118 4 0	3,623 12 8	.....	.....	17,490 2 10
5,955 9 3	53 0 0	301 9 0	42 0 0	.....	.....	20,475 8 2
510 7 6	.....	15 0 0	29 15 0	.....	.....	638 14 6
7,830 4 9	4,302 2 6	1,394 11 1	3,801 3 8	15 1 0	.....	46,439 13 5
.....	8 10 0	.....	.....	.....	.....	8 10 0
603 12 3	.....	174 7 1	1 8 0	.....	.....	2,215 15 7
11,795 9 6	830 12 0	489 7 6	441 0 8	−6 15 0	.....	16,594 11 6
2,399 5 9	839 6 0	663 14 7	442 8 8	−6 15 0	.....	18,819 5 1
1,24,721 12 4	5,580 13 2	11,084 7 3	4,395 10 4	8 2 0	.....	2,61,628 3 7
.....	.....	.....	.....	.....	.....	19,135 7 9
13,716 7 3	5,669 5 4	3,900 3 1	6,600 0 0	.....	.....	79,661 0 9
21,071 4 11	13,885 12 1	15,685 2 11	10,045 15 0	240 0 0	.....	1,68,978 3 0
6,248 11 11	3,955 12 4	4,230 2 5	3,253 4 9	225 11 10	.....	50,327 0 0
6,815 5 10	.....	911 7 6	4 1 0	.....	.....	10,030 7 6
2,059 15 3	1,665 10 8	1,933 10 7	1,339 14 6	30 3 9	.....	19,902 2 11
49,911 13 2	25,186 8 5	26,720 10 6	21,243 3 3	495 15 7	.....	3,48,034 5 11
.....	.....	.....	.....	.....	.....	2,191 12 8
3,443 0 4	1,200 0 0	1,255 6 0	720 0 0	.....	.....	15,028 15 5
3,195 9 1	1,191 12 8	1,612 12 9	747 12 7	.....	.....	18,403 6 3
1,035 15 4	371 8 4	356 0 8	294 5 9	15 5 8	.....	6,007 2 5
70 2 7	.....	.....	.....	.....	.....	510 15 10
15 0 0	130 0 0	175 0 0	172 8 0	.....	.....	785 7 8
7,759 11 4	2,893 5 0	3,399 3 5	1,934 10 4	15 5 8	.....	43,927 12 3
239 1 1	204 13 1	222 8 3	178 12 9	1 10 0	.....	2,363 12 8
504 0 0	197 3 0	196 10 0	87 9 0	0 5 0	.....	2,443 15 8
2,265 14 4	68 0 0	93 14 11	50 0 0	.....	.....	5,382 4 9
.....	.....	.....	.....	.....	.....	.....
744 5 0	316 2 6	391 0 0	360 4 6	5 1 0	.....	6,225 0 6
820 8 4	237 3 9	260 9 3	530 7 0	1 3 0	.....	4,790 10 8
.....	.....	.....	.....	.....	.....	.....
4,573 12 9	1,023 6 4	1,164 10 5	1,207 1 9	8 3 0	.....	21,205 12 3
62,245 5 3	29,103 3 9	31,284 8 4	24,384 15 4	519 8 3	.....	4,13,167 14 5
1,86,967 1 7	34,684 0 11	42,368 15 7	28,780 9 8	527 10 3	.....	6,74,796 2 0

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Working Plans, Central Circle, Division.	Poona Division.	Sátára Division.	East Khándesh Division.
CENTRAL CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	.....	737 7 0	.....	.....
b. Firewood and charcoal	.....	.....	7,235 6 0	11,508 5 3	.....
c. Bamboos	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....
e. Grass and other minor produce ...	.....	.....	6,309 12 6	828 10 0	.....
Total, I ...	.....	.....	14,282 9 6	12,336 15 3	.....
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	.....	42,812 4 0	17,762 0 3	16,027 8 0
b. Firewood and charcoal	.....	.....	43,414 14 0	94 4 9	8,411 15 0
c. Bamboos	.....	.....	188 0 0	44 10 0	12,790 6 0
d. Grazing and fodder-grass	.....	.....	55,163 8 0	27,177 1 3	1,29,130 9 3
e. Other minor produce	.....	.....	7,033 14 6	8,874 2 0	4,418 14 6
f. Other items	.....	.....	.....	.....	.....
g. Commutation fees .	.....	.....	.....	77 6 0	.....
Total, II ...	.....	.....	1,48,112 8 6	54,029 8 3	1,71,679 4 9
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	315 3 3	38 5 9	289 1 0
Total, III ...	.....	.....	315 3 3	38 5 9	289 1 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	6,350 8 6
b. Revenue from shared and private Forests	.....	.....	22 5 7	.....	.....
Total, IV ...	.....	.....	22 5 7	.....	6,350 8 6
V.—Miscellaneous—					
a. Fines and forfeitures	.....	.....	343 9 0	908 12 0	2,400 9 6
b. Refunds	.....	.....	5 15 5	.....	1 10 3
c. Other sources ...	654 3 0	18 8 0	14,744 12 10	9,230 1 9	5,182 12 0
Total, V ...	654 3 0	18 8 0	15,094 5 3	10,138 13 9	7,584 15 9
Grand Total, Revenue ...	654 3 0	18 8 0	1,77,827 0 1	76,543 11 0	1,85,903 14 0
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	.....	499 15 0	.....	425 3 0
b. Firewood and charcoal	.....	.....	1,605 6 0	7,249 8 6	.....
c. Bamboos	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....
e. Grass and other minor produce ...	.....	.....	1,450 5 9	457 12 0	.....
Total, A-I ...	.....	.....	2,955 10 9	7,707 4 6	425 3 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.	.....	.....	543 13 8	173 2 9	2,250 8 5
Total, A-II ...	.....	.....	543 13 8	173 2 9	2,250 8 5
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	.....	.....	1 0 0
Total, A-III ...	.....	.....	.....	.....	1 0 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1917-1918—contd.

West Khándesh Division.	North Khándesh Division.	West Khándesh Famine Fodder Division.	Kolaba Division.	Total for the forest year 1917-18.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
11,537 1 2	58 6 0	.....	33 14 0	12,366 12 2
.....	60 0 0	.....	6,110 5 6	24,914 0 9
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
19,449 14 11	3,059 14 6	1,15,791 0 11	11 12 0	1,45,451 0 10
30,987 0 1	3,178 4 6	115,791 0 11	6,155 15 6	1,82,731 13 9
1,54,626 4 0	44,298 9 9	.....	1,75,641 8 0	4,51,568 2 0
3,492 3 0	12,948 4 9	.....	828 3 0	69,189 12 6
202 8 0	688 15 3	.....	.....	13,909 7 3
44,173 1 3	51,425 3 6	.....	12,944 2 0	3,20,013 9 3
12,481 15 3	9,296 10 0	.....	5,109 6 0	47,214 14 3
.....	.....	.....	.....	.....
.....	.....	.....	.....	77 6 0
2,14,975 15 6	1,18,652 11 3	.....	1,94,523 3 0	9,01,973 3 3
214 13 9	220 10 0	.....	647 7 10	1,725 9 7
214 13 9	220 10 0	.....	647 7 10	1,725 9 7
.....	3,138 3 6	.....	.....	9,488 12 0
.....	.....	.....	4 7 2	26 12 9
.....	3,138 3 6	.....	4 7 2	9,515 8 9
561 12 0	546 14 0	.....	864 12 0	5,626 4 6
3 2 3	79 8 0	.....	430 10 6	520 14 5
11,087 12 8	10,302 4 5	.....	9,728 6 4	60,948 13 0
11,652 10 11	10,928 10 5	.....	11,023 12 10	67,095 15 11
2,57,830 8 3	1,36,118 7 8	115,791 0 11	2,12,354 14 4	11,63,042 3 3
6,027 7 3	23 5 0	.....	3 15 0	6,972 13 3
.....	26 7 0	.....	4,503 6 1	12,784 11 7
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
10,089 1 10	1,577 0 0	280,900 0 0	.....	2,94,474 3 7
16,109 9 1	1,626 12 0	280,900 0 0	4,507 5 1	3,14,231 12 5
2,898 12 2	4,679 15 1	.....	3,080 0 3	13,626 4 4
2,898 12 2	4,679 15 1	.....	3,080 0 3	13,626 4 4
.....	1 14 0	.....	9 15 0	12 13 0
.....	1 14 0	.....	9 15 0	12 13 0
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Working Plans Central Circle Division.	Poona Division.	Sátára Division.	East Khándesh Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government	.....	.....	706 13 1	3,369 3 9	.....
Total, A-V ...	...	.....	706 13 1	3,369 3 9	.....
VI.—Live-stock, Stores, Tools and Plant—					
a. Purchase of cattle	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant...	0 15 0	4 8 0	31 11 6	50 0 0	143 1 3
Total, A-VI ...	0 15 0	4 8 0	31 11 6	50 0 0	143 1 3
VII.—Communications and Buildings—					
a. Roads and Bridges	.....	422 8 8	1,875 0 9	2,041 6 10	1,534 11 6
b. Buildings... ...	.....	.....	4,013 14 6	3,263 5 9	7,355 10 6
c. Other works ...	.....	.....	.....	88 14 6	350 0 0
Total, A-VII ...	.....	422 8 8	5,888 15 3	5,393 11 1	9,240 6 0
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	.....	1,326 14 3	611 5 9	300 12 0
b. Cost of Forest Settlements and Compensation for land and rights.	.....	.....	.....	805 0 0	.....
c. Surveys	.....	.....	.....	.....	.....
d. Working Plans ...	.....	860 14 10	310 4 3	129 7 7	979 15 9
e. Sowing and Planting	.....	.....	2,795 13 0	1,470 14 7	578 15 6
f. Protection from Fire	.....	.....	155 6 0	160 0 0	1,833 11 0
g. Other works ...	.....	.....	309 4 0	29 7 6	25 14 0
Total, A-VIII ...	.....	860 14 10	4,897 9 6	3,196 3 5	3,719 4 3
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain Compensation	.....	.....	47 0 0	63 14 6	200 4 2
c. Other charges ...	5,874 8 0	166 12 0	1,811 15 1	1,288 0 11	1,019 3 10
Total, A-IX ...	5,874 8 0	166 12 0	1,858 15 1	1,351 15 5	1,219 8 0
TOTAL A.—CONSERVANCY AND WORKS...	5,875 7 0	1,454 6 6	16,883 8 10	21,241 8 11	16,998 14 11
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	21,535 7 9	.....	.....	.....	.....
b. Superior Officers.	.....	9,680 0 0	12,704 15 10	12,950 0 0	9,733 2 7
c. Subordinate Forest and Depôt Establishments.	.....	2,319 3 1	38,645 12 11	25,376 1 8	26,854 3 1
d. Office Establishments	8,579 3 9	1,396 14 0	7,199 0 1	5,983 1 4	6,370 2 5
e. Deputation and Special Allowances	11,200 12 8	400 0 0	627 11 6	570 8 9	602 15 6
f. Grain Compensation Allowance.	109 3 7	228 1 10	3,042 8 4	2,810 12 3	2,925 13 5
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators... ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators.	.....	.....	.....	.....	.....
Total, B-I ...	41,424 11 9	13,944 2 11	62,220 0 8	47,690 8 0	48,486 5 0
II.—Travelling Allowances—					
a. Conservators ...	2,529 0 8	.....	.....	.....	.....
b. Superior Officers.	.....	1,370 11 4	1,949 4 4	2,060 4 7	1,861 7 9
c. Subordinate Forest and Depôt Establishments.	.....	938 15 3	3,439 12 9	3,068 0 3	2,564 1 8
d. Office Establishments	669 10 8	452 14 0	629 15 10	576 4 9	564 13 0
e. Forest School, Dehra Dun ...	283 6 3	.....	.....	87 1 7	2 2 1
f. Plague allowances.	110 0 0	.....	196 14 0	30 0 0	103 0 0
Total, B-II ...	3,592 1 7	2,762 8 7	6,215 14 11	5,821 11 2	5,095 8 6
III.—Contingencies—					
a. Stationery ...	19 13 0	2 9 0	604 15 4	362 2 3	419 14 5
b. Carriage of Tents and Records ...	259 7 6	235 12 6	251 9 6	214 13 3	242 0 6
c. Rents, rates and taxes	1,516 15 0	.....	143 0 0	20 6 0	72 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....
e. Official postage...	320 0 0	66 8 0	983 13 0	710 0 0	837 0 6
f. Sundries	377 1 3	172 13 6	493 9 9	306 7 0	544 15 9
Payments to Officers of other Provinces.	.....	.....	.....	.....	.....
Total, B-III ...	2,493 4 9	477 11 0	2,476 15 7	1,613 12 6	2,115 15 2
TOTAL, B.—ESTABLISHMENTS...	47,510 2 1	17,184 6 6	70,912 15 2	55,125 15 8	55,697 12 8
GRAND TOTAL OF EXPENDITURE ...	53,385 9 1	18,638 13 0	87,796 8 0	76,367 8 7	72,696 11 7

different Divisions for the forest year 1917-1918—continued.

West Khándesh Division.	North Khándesh Division.	West Khándesh Famine Fodder Division.	Kolába Division.	Total for the forest year 1917-1918.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	.....	.....	10,009 7 0	14,085 7 10
.....	.....	.....	10,009 7 0	14,085 7 10
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
166 0 0	179 9 0	.....	37 0 0	612 12 9
166 0 0	179 9 0	.....	37 0 0	612 12 9
770 5 0	4,255 3 7	.....	120 10 6	11,019 9 10
3,375 8 6	2,706 5 0	.....	364 8 9	21,079 5 0
.....	.....	.....	—21 3 0	417 11 6
4,145 13 6	6,961 8 7	.....	464 0 3	32,516 10 4
264 3 6	556 13 9	.....	566 7 7	3,626 8 10
39 13 10	.....	.....	.....	344 13 10
.....	.....	.....	.....	.....
149 2 0	632 10 3	.....	544 11 9	3,607 2 5
271 13 0	1,681 10 0	.....	1,087 6 10	7,886 8 11
4,664 14 3	6,809 11 10	.....	2,746 0 0	16,359 11 1
54 0 0	5 13 0	.....	.....	424 6 6
5,443 14 7	9,686 10 10	.....	4,944 10 2	32,749 3 7
.....	.....	.....	.....	.....
159 7 11	223 8 10	.....	336 14 1	1,031 1 6
1,123 7 6	1,000 9 3	.....	3,098 4 9	15,382 13 4
1,282 15 5	1,224 2 1	.....	3,435 2 10	16,419 14 10
30,047 0 9	24,360 7 7	280,900 0 0	26,487 8 7	4,24,248 15 1
.....	.....	.....	.....	21,535 7 9
10,217 8 7	10,680 0 0	.....	12,763 15 3	78,649 10 3
22,232 8 1	21,057 15 3	.....	40,946 9 8	1,79,432 5 9
5,391 12 5	5,463 12 8	.....	8,285 5 5	48,669 4 1
1,997 6 8	2,154 6 1	.....	119 7 8	17,673 4 10
1,509 10 4	1,576 4 2	.....	056 4 7	18,558 10 6
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
41,648 14 1	40,932 6 2	.....	68,171 10 7	3,64,518 11 2
.....	.....	.....	.....	2,529 0 8
1,565 15 9	2,638 4 0	.....	1,741 15 0	13,187 14 9
3,111 12 0	3,136 14 8	.....	2,092 0 8	18,351 9 3
733 8 7	551 2 9	.....	598 10 10	4,777 0 5
89 0 6	.....	.....	62 1 7	523 12 0
65 0 0	140 0 0	.....	.....	644 14 0
5,565 4 10	6,466 5 5	.....	4,494 12 1	40,014 3 1
257 12 6	328 15 6	.....	467 1 2	2,463 3 2
160 3 3	288 2 6	.....	197 10 9	1,849 11 9
97 11 5	59 0 0	.....	.....	1,899 0 5
.....	.....	.....	.....	.....
898 11 0	304 7 0	.....	838 9 0	5,039 0 6
498 8 0	500 14 3	.....	219 8 10	3,113 14 4
.....	.....	.....	.....	.....
1,892 14 2	1,571 7 3	.....	1,722 13 9	14,364 14 2
49,107 1 1	48,970 2 10	.....	74,389 4 5	4,18,697 12 5
79,154 1 10	73,330 10 5	280,900 0 0	100,876 13 0	8,43,146 11 6

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Ratnagiri Division.	Kánara Northern Division.	Kánara Eastern Division.	Belgaum Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	.....	.....	5,16,329 4 4	3,48,599 4 7	90,962 4 1
b. Firewood and charcoal ...	.....	46 2 0	219 6 7	3 0 0	1,81,388 3 0
c. Bamboos ...	.....	.....	19,134 7 0	759 0 0	55,816 12 0
d. Sandalwood ...	.....	.....	5,984 1 5	13,947 6 7	9,861 6 4
e. Grass and other minor produce ...	.....	.....	.....	169 0 0	127 8 0
Total, I ...	.....	46 2 0	5,71,667 3 4	3,63,477 11 2	3,38,156 1 5
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber ...	.....	159 4 3	2,32,094 4 6	46,304 15 10	16,053 7 1
b. Firewood and charcoal ...	.....	28 2 0	9,095 4 5	9,802 12 6	48,163 6 0
c. Bamboos ...	.....	69 4 0	8,575 2 0	8,950 11 0	7,069 15 10
d. Grazing and fodder grass ...	.....	68 0 0	5,438 6 0	6,818 6 0	9,206 6 0
e. Other minor produce...	.....	14 15 0	1,416 2 0	2,026 12 1	21,080 0 6
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	.....	339 9 3	2,56,619 2 6	73,903 9 5	1,01,573 3 5
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	9 13 6	1 8 0	5 0 0	98 15 3
Total, III ...	.....	9 13 6	1 8 0	5 0 0	98 15 3
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests .	.....	10 9 6	.....	.....	.....
Total, IV ...	.....	10 9 6	.....	.....	.....
V.—Miscellaneous—					
a. Fines and forfeitures	.....	.....	377 13 0	1,127 4 0	107 12 10
b. Refunds ...	300 0 0	.....	16 10 9	43 8 5	310 5 6
c. Other sources ...	1,022 13 1	37 0 0	4,699 4 8	3,500 9 0	22,424 13 4
Total, V ...	1,822 13 1	37 0 0	5,093 12 5	4,671 5 5	22,872 15 8
Grand Total, Revenue ...	1,822 13 1	443 2 3	8,33,381 10 3	4,42,057 10 0	4,62,701 3 9
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	459 5 0	.....	5,23,330 5 6	1,50,342 5 9	46,369 5 3
b. Firewood and charcoal ...	.....	.....	.....	.....	1,34,533 15 0
c. Bamboos ...	.....	.....	11,911 14 10	500 0 0	26,863 15 7
d. Sandalwood ...	.....	.....	251 2 1	456 7 3	898 14 1
e. Grass and other minor produce ...	.....	.....	20 7 0	378 0 7	191 12 0
Total, A-I ...	459 5 0	.....	5,35,573 13 5	1,51,676 13 7	2,08,862 13 11
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	.....	3 8 9	1,377 6 10	454 7 3	3,998 4 5
Total, A-II ...	.....	3 8 9	1,377 6 10	454 7 3	3,998 4 5
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	5 2 0	2 0 0	28 5 7
Total, A-III ...	.....	.....	5 2 0	2 0 0	28 5 7
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests .	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1917-1918—contd.

Dhárwár and Bijápur Division.	Kánara Southern Division.	Working Plans Division.	Kánara Central Division.	Kánara Western Division.	Total for the forest year 1917-1918.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	3,480 7 8	.....	48,891 10 7	1,64,057 11 3	12,01,820 10 6
490 0 0	3,807 10 3	.....	0 7 6	72,208 15 1	2,58,163 12 5
.....	.....	.....	.....	4,945 9 0	80,656 3 0
13,205 12 6	3,960 12 11	.....	9,580 12 4	.....	56,540 4 1
7,935 14 4	.....	.....	.....	.....	8,232 6 4
21,631 10 10	11,248 14 10	.....	57,972 14 5	2,41,211 10 4	16,05,412 4 4
105 6 0	2,105 1 8	.....	2,536 11 2	4,864 5 10	3,04,223 8 4
20,477 4 7	5,487 3 3	.....	8,801 3 11	24,977 0 1	1,26,832 4 4
618 4 0	1,094 4 9	.....	705 6 6	257 14 7	27,340 14 8
20,124 6 9	8,081 12 0	.....	7,318 8 0	5,212 10 0	62,238 6 9
9,780 5 10	6,620 2 3	.....	2,817 15 8	4,408 11 0	48,165 0 4
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
51,105 11 2	23,388 7 11	.....	22,179 13 3	39,720 9 6	5,68,830 2 5
93 15 6	43 10 7	.....	67 0 6	26 11 6	351 10 10
93 15 6	43 10 7	.....	67 0 6	26 11 6	351 10 10
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	10 9 6
.....	.....	.....	.....	.....	10 9 6
1,499 0 0	416 15 3	.....	397 0 0	998 14 0	4,924 11 1
483 5 2	30 9 3	10 0 0	27 11 2	90 10 3	1,842 12 6
4,303 15 3	3,924 14 11	3 8 0	2,651 8 10	7,500 3 2	50,068 10 3
6,286 4 5	4,372 7 5	13 8 0	3,076 4 0	8,589 11 5	56,836 1 10
79,122 9 11	39,053 8 9	13 8 0	83,296 0 2	2,89,548 10 9	22,31,440 12 11
.....	3,692 13 10	.....	1,01,965 2 1	1,50,467 15 10	9,76,687 5 3
221 4 11	12,606 1 1	.....	23,805 6 7	56,997 3 8	2,28,163 15 3
.....	3,993 0 3	.....	17,557 15 1	20,165 5 1	80,997 2 10
580 14 1	205 10 9	.....	693 14 0	.....	3,036 14 3
6,261 11 9	.....	.....	65 10 6	.....	6,917 9 10
7,063 14 9	20,497 9 11	.....	1,44,083 0 3	2,27,630 8 7	12,95,852 15 5
1,080 2 8	419 11 2	.....	123 3 5	1,887 5 10	9,344 2 4
1,080 2 8	419 11 2	.....	123 3 5	1,887 5 10	9,344 2 4
5 12 0	31 14 1	.....	4 0 9	9 12 0	86 14 5
5 12 0	31 14 1	.....	4 0 9	9 12 0	83 14 5
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

FORM NO. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Ratnágiri Division.	Kánara Northern Division.	Kánara Eastern Division.	Belgaum Division.
EXPENDITURE —*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....
VI.—Live-stock Stores, Tools and Plant—					
a. Purchase of cattle...	.....	.....	292 0 0	.....	.....
b. Feed and keep of cattle ...	.....	28 4 0	2,109 13 2	2,902 14 4	.....
c. Purchase of stores, tools and plant ...	463 7 11	.....	2,785 15 9	1,256 0 3	86 0 0
Total, A-VI ...	463 7 11	28 4 0	5,187 12 11	4,158 14 7	86 0 0
VII.—Communications and Buildings—					
a. Roads and bridges .	.....	.....	27,020 15 10	19,804 14 1	20,694 12 10
b. Buildings ...	.....	.....	3,998 3 9	6,662 15 1	928 1 5
c. Other works ...	.....	.....	665 6 1	1,981 9 0	427 15 6
Total, A-VII ...	.....	.....	31,684 9 8	28,449 6 2	22,050 13 9
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	.....	28 8 0	170 12 6	905 8 4
b. Cost of Forest Settlements and Compensation for land and rights	.....	.....	1,000 0 0	.....	2,157 15 7
c. Surveys ...	.....	.....	.....	.....	.....
d. Working-plans ...	.....	.....	.....	.....	.....
e. Sowing and planting ...	.....	215 0 0	10,056 4 9	6,582 6 2	4,184 8 8
f. Protection from fire.	.....	.....	4,269 6 9	5,277 0 9	6,031 10 9
g. Other works ...	.....	.....	.....	216 12 0	224 14 0
Total, A-VIII ...	.....	215 0 0	15,354 3 6	12,246 15 5	13,484 8 11
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain compensation allowance ...	11 0 0	55 15 0	934 8 4	642 2 11	79 1 9
c. Other charges ...	—24 14 0	—11 3 6	2,851 7 8	705 9 1	3,081 12 0
Total, A-IX ...	—13 14 0	44 11 6	3,786 0 0	1,347 12 0	3,160 13 9
TOTAL, A.—CONSERVANCY AND WORKS ...	908 14 11	291 8 3	5,92,969 0 4	1,98,336 5 0	2,51,671 12 4
B.—ESTABLISHMENTS.					
I—Salaries—					
a. Conservators ...	21,079 15 6	.....	.....	.....	.....
b. Superior Officers ...	1,759 5 4	.....	21,344 13 5	17,470 0 0	13,960 5 1
c. Subordinate Forest and Depôt Establishments ...	720 0 0	2,605 14 6	32,362 2 4	24,121 14 7	29,853 5 7
d. OfficeEstablishments	6,822 15 1	446 15 2	6,214 14 7	6,090 4 3	5,624 5 10
e. Deputation and Special Allowances.	1 3 4	.....	3,978 5 2	5,287 11 8	803 14 8
f. Exchange Compensation Allowance—					
1. Conservators ...	.....	.....	.....	.....	.....
2. Deputy Conservators ...	.....	.....	.....	.....	.....
3. Assistant Conservators ...	.....	.....	.....	.....	.....
4. Extra Assistant Conservators ..	.....	.....	.....	.....	.....
g. Grain compensation allowance ...	194 1 2	426 9 10	3,425 7 10	2,814 5 1	3,115 7 10
Total, B-I ...	30,568 8 5	3,479 7 6	67,325 11 4	55,784 3 7	53,357 7 0
II.—Travelling Allowances—					
a. Conservators ...	3,144 9 10	.....	.....	.....	.....
b. Superior Officers ...	107 4 0	.....	2,676 0 8	2,638 8 11	2,430 15 7
c. Subordinate Forest and Depôt Establishments ...	165 0 0	398 10 0	3,453 13 0	2,731 1 6	3,545 13 1
d. Office Establishments ...	1,086 2 5	.....	446 0 10	515 8 7	755 6 4
e. Forest School (Dehra Dun) ...	.....	.....	100 0 0	.....	.....
f. Plague allowances...	17 5 0	14 15 1	.....	.....	.....
Total, B-II ...	4,520 5 3	413 9 1	6,675 14 6	5,885 3 0	6,782 3 0
III.—Contingencies—					
a. Stationery ...	10 10 9	69 2 11	256 10 0	220 4 0	215 7 6
b. Carriage of Tents and Records ...	359 3 2	26 5 3	61 10 0	52 6 0	204 12 11
c. Rents, Rates and Taxes ...	840 0 0	.....	0 8 0	.....	.....
d. Pay of Police-guards ...	.....	.....	.....	.....	.....
e. Official Postage ...	{ 170 0 0 / 680 1 0 }	40 0 0	716 4 0	659 8 0	1,112 4 4
f. Sundries ...	1,863 11 3	58 13 6	165 7 1	128 6 0	440 2 3
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	3,923 10 2	194 5 8	1,200 7 1	1,060 8 0	1,972 11 0
TOTAL, B—ESTABLISHMENTS ...	39,012 7 10	4,087 6 3	75,202 0 11	62,729 14 7	62,112 5 0
GRAND TOTAL OF EXPENDITURE ...	39,921 6 9	4,378 14 6	6,68,171 1 3	2,61,066 3 7	3,13,784 1 4

different Divisions for the forest year 1917-1918—contd.

Dhárwár and Bijápur Division.	Kánara Southern Division.	Working Plans Division.	Kánara Central Division.	Kánara Western Division.	Total for the forest year 1916-1917.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	304 0 0	598 0 0
.....	.....	.....	.....	1,136 7 1	6,177 6 7
2 4 0	17 5 6	.....	234 3 0	1,976 10 3	6,821 14 8
2 4 0	17 5 6	.....	234 3 0	3,417 1 4	13,595 5 3
.....	1,528 8 10	.....	3,579 3 3	52,097 12 6	1,24,726 3 4
717 5 7	605 8 8	.....	1,013 15 11	865 15 6	14,793 1 11
238 15 5	114 12 0	.....	572 0 4	81 14 3	4,082 8 7
956 5 0	2,248 13 6	.....	5,165 3 6	53,045 10 3	1,43,600 13 10
40 6 0	659 13 6	.....	59 10 0	236 0 0	2,100 10 4
.....	89 1 2	.....	.....	123 0 8	3,370 1 5
.....	.....	.....	.....	.....	.....
.....	.....	761 0 0	.....	.....	761 0 0
832 8 4	1,741 3 6	.....	1,537 5 2	4,457 12 6	29,607 0 8
899 4 6	664 4 0	.....	887 8 1	2,520 2 10	20,529 5 8
32 2 6	51 12 0	.....	256 13 6	.....	782 6 0
1,804 5 4	3,206 2 2	761 0 0	2,741 4 9	7,337 0 0	57,150 8 1
.....	.....	.....	.....	107 5 2	107 5 2
6 15 11	78 6 5	48 0 0	113 9 2	204 2 1	2,263 13 7
1,559 15 3	1,220 6 9	—10 8 2	1,617 10 3	841 7 9	11,831 11 1
1,566 15 2	1,298 13 2	37 7 10	1,731 3 5	1,242 15 0	14,202 13 10
12,479 10 11	27,720 5 6	798 7 10	1,54,087 3 1	2,94,570 5 0	15,33,833 9 2
.....	.....	.....	.....	.....	21,070 15 6
5,278 1 1	4,780 0 0	4,900 0 0	10,310 12 6	18,129 0 6	97,932 5 11
18,617 5 0	16,612 4 9	1,021 2 1	16,227 14 4	20,785 14 8	1,92,927 13 10
4,646 8 6	4,372 15 8	990 11 10	4,288 1 10	5,585 7 0	45,093 3 9
.....	783 4 5	.....	705 13 11	1,537 11 0	13,098 0 2
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
1,492 12 2	2,136 6 10	96 5 4	2,236 1 10	2,261 15 2	18,199 9 1
30,034 10 9	28,684 15 8	7,008 3 3	33,778 12 5	48,300 0 4	3,58,322 0 3
.....	.....	.....	.....	.....	3,144 9 10
1,541 1 4	901 14 6	1,050 0 0	2,630 10 0	3,600 6 11	17,626 13 11
1,532 1 9	1,811 9 1	279 4 9	1,732 4 5	2,305 2 8	17,954 12 3
629 12 10	325 9 8	175 15 0	770 12 10	484 6 8	5,189 11 2
.....	.....	.....	48 6 4	200 0 0	348 6 4
93 0 0	.....	.....	.....	.....	125 4 2
3,795 15 11	3,039 1 3	1,505 3 9	5,182 1 7	6,590 0 3	44,389 9 7
213 5 1	132 4 6	.....	214 11 6	186 12 10	1,519 5 1
240 1 8	133 14 10	.....	395 6 5	309 0 0	1,872 12 3
.....	.....	.....	.....	.....	840 8 0
.....	.....	.....	.....	.....	829 8 0
877 1 0	666 6 6	15 0 0	891 13 0	614 10 6	5,741 14 4
412 1 7	84 7 7	.....	256 3 5	246 3 7	3,527 2 3
.....	.....	.....	.....	.....	.....
1,742 9 4	1,017 1 5	15 0 0	1,758 2 4	1,446 10 11	14,331 1 11
35,573 4 0	32,741 2 4	8,528 7 0	40,719 0 4	56,336 11 6	4,17,042 11 8
48,052 14 11	60,461 7 10	9,326 14 10	1,94,806 3 5	3,50,907 0 6	19,50,876 4 11

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1917-1918*—contd.

Budget Head.	Direction.	Kárachi Division.	Lárkána Division.	Sukkur Division.	Shikarpur Division.	Hyderabad Division.	Thar and Párkar Division.	Total for the forest year 1917-18.
SIND CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.
REVENUE.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	53 3 0	119 0 0	3,250 0 0	2 0 0	13 3 2	.....	3,437 6 2
b. Firewood and charcoal	.....	11 0 0	521 0 0	8,852 3 0	.....	1,371 14 2	.....	10,756 1
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	4,334 0 0	.....	351 14 4	.....	357 1 9	.....	5,043 0 1
Total, I ...	.....	4,398 3 0	640 0 0	12,454 1 4	2 0 0	1,742 3 1	.....	19,236 7 5
II.—Timber and other produce removed from the forests by consumers or purchasers—								
a. Timber...	.....	18,926 12 2	9,172 7 6	22,447 4 0	6,808 10 6	86,456 4 3	294 7 8	1,47,105 14 1
b. Firewood and charcoal.	.....	88,415 6 8	31,029 9 1	1,05,780 11 10	56,356 8 8	1,71,447 6 2	158 13 0	4,53,188 7 11
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass	.....	8,345 9 6	6,251 11 0	11,731 13 0	3,777 13 0	8,325 9 2	2,103 8 0	41,035 15 8
e. Other minor produce.	.....	2,375 0 0	1,664 3 1	4,288 10 4	1,037 8 0	23,809 8 6	6,914 8 0	40,089 5 11
f. Other items ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, II ...	.....	1,18,562 12 4	48,117 14 8	1,44,248 7 2	70,980 8 2	2,90,038 12 1	9,471 5 2	6,81,419 11 7
III.—Drift and waif wood and confiscated forest produce	.....	413 14 0	.....	202 12 0	142 5 0	27 2 0	.....	786 1 0
Total, III ...	.....	413 14 0	.....	202 12 0	142 5 0	27 2 0	.....	786 1 0
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, IV ...	.....	.....	.....	.....	.....	.....	.....	.....
V.—Miscellaneous—								
a. Fines and forfeitures.	.....	900 3 0	221 0 0	1,269 8 0	513 8 0	3,909 14 0	.....	6,814 1 0
b. Refunds	20 11 6	.....	19 8 10	15 8 6	.....	50 12 9	.....	106 9 7
c. Other sources	1 4 0	3,576 2 7	6,413 14 8	5,892 8 3	4,582 8 8	4,271 7 0	.....	24,687 13 2
Total, V ...	21 15 6	4,476 5 7	6,654 7 6	7,177 8 9	5,046 0 8	8,232 1 9	.....	31,608 7 9
Grand Total, Revenue ...	21 15 6	1,27,851 2 11	55,412 6 2	1,64,082 13 3	76,170 13 10	3,00,040 2 11	9,471 5 2	7,33,050 11 9
EXPENDITURE.								
A.—CONSERVANCY AND WORKS.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	.....	.....	733 8 0	.....	.....	.....	733 8 0
b. Firewood and charcoal	.....	4,944 1 6	590 0 0	990 6 2	.....	829 2 11	.....	7,353 10 7
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-I ...	.....	4,944 1 6	590 0 0	1,723 14 2	.....	829 2 11	.....	8,087 2 7
II.—Timber and other produce removed from the forests by consumers or purchasers	.....	593 3 9	2 5 0	44 9 9	14 6 0	68 15 0	.....	723 7 6
Total, A-II ...	.....	593 3 9	2 5 0	44 9 9	14 6 0	68 15 0	.....	723 7 6
III.—Drift and waif wood and confiscated fores produce	.....	.....	.....	1 4 0	.....	.....	.....	1 4 0
Total, A-III ...	.....	.....	.....	1 4 0	.....	.....	.....	1 4 0
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1917-1918*—concld.

Budget Head.	Direction.	Karáchi Division.	Lárkána Division.	Sukkur Division.	Shikarpur Division.	Hyderabad Division.	Thar and Párkar Division.	Total for forest year 1917-18.
EXPENDITURE—*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*								
V.—Rent of leased forests and payment to shareholders in forests managed by Government	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....	.....	.....	.....
VI.—Live Stock, Stores, Tools and Plant—								
a. Purchase of cattle ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	6 4 3	30 0 0	328 2 3	.....	6 3 0	.....	370 9 6
c. Purchase of stores, tools and plant ...	108 4 0	204 13 8	112 12 0	186 8 0	115 12 0	189 6 0	.....	917 7 8
Total, A-VI ...	108 4 0	211 1 11	142 12 0	514 10 3	115 12 0	195 9 0	.....	1,289 1 2
VII.—Communications and Buildings—								
a. Roads and bridges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings	.....	394 10 2	592 0 1	812 4 7	295 8 0	4,654 8 6	.....	6,748 15 4
c. Other works	.....	3,059 7 8	634 15 7	718 6 7	196 14 2	379 12 5	.....	4,989 8 5
Total, A-VII ...	.....	3,454 1 10	1,226 15 8	1,530 11 2	492 6 2	5,034 4 11	.....	11,738 7 9
VIII.—Organization, Improvement and Extension of forest—								
a. Demarcation	.....	.....	.....	.....	.....	.....	.....	.....
b. Cost of forest settlements and compensation for land and rights	.....	.....	.....	122 0 0	.....	.....	.....	122 0 0
c. Surveys	.....	.....	.....	.....	.....	.....	.....	.....
d. Working Plans ...	27 10 8	713 14 6	349 0 7	62 12 6	.....	751 11 11	.....	1,905 2 3
e. Sowing and planting.	45 1 8	1,577 13 6	412 4 3	2,067 7 0	624 7 10	2,489 1 7	.....	7,216 3 10
f. Protection from fire...	.....	1,518 0 11	.....	.....	.....	.....	.....	1,518 0 11
g. Other works	.....	.....	971 2 9	.....	204 0 0	1,581 0 9	.....	2,756 3 6
Total, A-VIII ...	72 12 4	3,809 12 11	1,732 7 7	2,252 3 6	828 7 10	4,821 14 3	.....	13,517 10 5
IX.—Miscellaneous—								
a. Law charges	.....	.....	.....	.....	.....	.....	.....	.....
b. Grain compensation...	.....	69 15 2	86 2 5	79 14 9	9 0 0	186 3 7	.....	431 3 11
c. Other charges... ...	6 8 0	1,208 9 3	723 12 0	1,294 14 9	702 4 0	860 2 0	.....	4,796 2 0
Total, A-IX ...	6 8 0	1,278 8 5	809 14 5	1,374 13 6	711 4 0	1,046 5 7	.....	5,227 5 11
TOTAL, A.—CONSERVANCY AND WORKS	187 8 4	14,290 14 4	4,504 6 8	7,442 2 4	2,162 4 0	11,996 3 8	.....	40,583 7 4
B.—ESTABLISHMENTS.								
I.—Salaries.								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	15,960 0 0	14,100 0 0	9,600 0 0	14,060 0 0	4,575 11 4	6,607 4 2	.....	64,902 15 6
c. Subordinate Forest and Depôt Establishments	475 0 0	12,945 1 1	9,751 12 1	16,983 15 4	7,458 7 8	12,137 3 11	1,654 12 4	61,406 4 5
d. Office Establishments.	5,242 7 1	4,457 15 5	4,023 0 1	5,100 6 4	2,887 7 10	4,393 6 9	.....	26,104 11 6
e. Deputation and Special Allowances	1,741 14 19	582 6 6	683 14 10	901 0 4	18 8 4	29 2 11	.....	3,956 15 9
f. Grain compensation .	136 2 0	1,109 1 3	498 11 2	692 0 3	388 10 10	500 7 6	197 12 11	3,532 13 11
Total, B-I ...	23,555 7 11	33,254 8 3	24,557 6 2	37,737 6 3	15,328 14 0	23,667 9 3	1,852 9 3	1,59,953 13 1
II.—Travelling Allowances—								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	3,049 9 5	2,374 15 7	1,860 4 8	2,160 0 0	1,060 0 0	1,311 11 3	.....	11,816 3 11
c. Subordinate Forest and Depôt Establishments.	421 1 6	1,247 7 5	924 12 1	2,021 0 3	867 14 11	1,179 14 3	.....	6,662 2 5
d. Office Establishments.	1,057 1 11	614 6 7	406 6 3	943 8 10	491 3 5	609 9 6	.....	4,122 4 6
e. Forest School (D.D.) .	.....	76 13 10	.....	.....	.....	81 7 3	.....	158 5 1
f. Plague allowances ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-II ...	4,527 12 10	4,313 11 5	3,191 7 0	5,124 9 1	2,419 2 4	3,182 10 3	.....	22,759 4 11
III.—Contingencies—								
a. Stationery	11 3 6	102 15 0	72 5 0	165 2 6	99 14 0	110 13 0	.....	562 5 0
b. Carriage of tents and records	513 11 0	253 6 11	214 14 6	383 8 9	200 15 7	213 1 0	.....	1,784 9 9
c. Rents, Rates and Taxes	1,601 5 3	631 10 8	741 10 0	134 12 1	299 3 3	564 0 0	.....	3,972 9 3
d. Pay of Police guards.	.....	.....	.....	.....	.....	.....	.....	.....
e Official postage ...	380 10 0	557 2 2	423 12 0	586 10 6	430 7 0	523 0 6	.....	2,856 10 2
f. Sundries	655 9 0	539 4 3	410 7 6	172 11 8	395 1 5	481 2 9	.....	3,254 4 6
Payments to officers of other provinces	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III ...	3,162 6 9	2,084 6 11	1,868 1 0	1,997 13 6	1,425 9 3	1,892 1 3	.....	12,430 6 8
TOTAL, B.—ESTABLISHMENTS	31,245 11 6	39,652 10 7	29,616 14 2	44,859 12 10	19,173 9 7	28,742 4 9	1,852 9 3	1,95,143 8 8
GRAND TOTAL OF EXPENDITURE...	31,433 3 10	53,943 8 11	34,121 4 10	52,301 15 2	21,335 13 7	40,738 8 5	1,852 9 3	2,35,707 0 0

FORM No. 25.

BUDGET HEADS—REVENUE.	Total for forest year 1917-18.
Chief Conservator.	Rs. a. p.
I.—Timber and other produce removed from the Forests by Government agency :—	
a. Timber	.....
b. Firewood and charcoal	.....
c. Bamboos	.....
d. Sandalwood	.....
e. Grass and other minor produce	.....
II.—Timber and other produce removed from the Forests by consumers or purchasers :—	
a. Timber	.....
b. Firewood and charcoal	.....
c. Bamboos	.....
d. Grazing and fodder grass	.....
e. Other minor produce	.....
f. Other items	.....
g. Commutation fees	.....
III.—Drift and waif wood and confiscated Forest produce :— ...	.....
IV.—Revenue from Forests not managed by Government :— ...	.....
a. Duty on foreign timber and Forest produce	.....
b. Revenue from shared and private Forests	.....
V.—Miscellaneous :—	
a. Fines and forfeitures	.....
b. Refunds	0 8 0
c. Other sources	.....
Total Revenue ...	0 8 0

A.—CONSERVANCY AND WORKS.

I.—Timber and other produce removed from the Forests by Government agency :—	
a. Timber	.....
b. Firewood and charcoal	.....
c. Bamboos	.....
d. Sandalwood	.....
e. Grass and other minor produce	.....
II.—Timber and other produce removed from the Forests by consumers or purchasers	.....
III.—Drift and waif wood and confiscated Forest produce ...	.....
IV.—Revenue from Forests not managed by Government	.....
a. Duty on Foreign timber and other Forest produce ...	.....
b. Revenue from shared and private Forests	.....
V.—Rent of leased Forests and payments to shareholders in Forests managed by Government	.....
VI.—Live-stock, Stores, Tools and Plants :—	
a. Purchase of cattle	.....
b. Feed and keep of cattle	.....
c. Purchase of Stores, Tools and Plant	435 15 0
VII.—Communications and Buildings	.....
a. Roads and Bridges	.....
b. Buildings	.....
c. Other Works	.....

FORM No. 25—*contd.*

BUDGET HEADS—REVENUE.	Total for forest year 1917-18.
Chief Conservator—continued.	Rs. a. p.
VIII.—Organization, Improvement and Extension of Forests :—	
a. Demarcation	.....
b. Cost of Forests Settlement and Compensation for land and rights	.....
c. Surveys	.....
d. Working Plans	.....
e. Sowing and planting	.....
f. Protection from fire	.....
g. Other works	.....
IX.—Miscellaneous :—	
a. Law charges	.....
b. Grain compensation	.....
c. Other charges	28 7 0
Carried over Total A.—Conservancy and Works ...	464 6 0
B.—ESTABLISHMENT.	
I.—Salaries :—	
a. Conservators	6,339 5 8
b. Superior Officers	930 0 0
c. Subordinate Forests and depôt establishments	.....
d. Office establishment	505 1 6
e. Deputation and Special Allowances	.....
f. Grain Compensation Allowance	25 7 0
(1) Conservators	.....
(2) Deputy Conservators	.....
(3) Assistant do.	.....
(4) Extra Assistant do.	.....
Total B—I ...	7,829 14 2
II.—Travelling Allowances :—	
a. Conservators	1,152 12 3
b. Superior officers	.....
c. Subordinate forest and depôt establishments	.....
d. Office establishments	312 11 2
e. Forest school	.....
f. Plague allowance	.....
Total B—II ...	1,465 7 5
III.—Contingencies :—	
a. Stationery	3 8 0
b. Carrage of tents and records	119 1 6
c. Rents, rates and taxes	.....
d. Pay of Police guards	.....
e. Official postage	85 0 0
f. Sundries	60 15 0
Total B—III ...	268 8 6
Total B.—Establishments	9,563 14 1
Grand Total of all Expenditure	10,028 4 1
Total for the Presidency :—	
Revenue	64,53,370 7 10
Expenditure { A—22,60,758 9 2 / B—14,53,815 13 4	37,14,574 6 6
Surplus	27,38,796 1 4

FORM No. 26.—*Revenue received and outstandings on account of revenue during 1917-1918.*

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	Various sources ...	.....	944 4 6	944 4 6	944 4 6	.....	
Panch Mahals.	Timber and other produce, etc.	.....	1,87,395 8 4	1,87,395 8 4	1,87,395 8 4	.....	
Surat ...	Do. ...	1,280 0 0	2,53,356 12 1	2,54,636 12 1	2,48,041 12 1	6,555 0 0	
North Thána.	Do. ...	48,272 0 0	9,37,058 8 5	9,85,330 8 5	9,85,489 0 5	3,841 8 0	
West Thána ...	Do. ...	.....	2,83,097 15 11	2,83,097 15 11	2,83,097 15 11	.....	
East Thána ...	Do. ...	14,245 8 0	3,52,305 15 10	3,66,551 7 10	3,60,630 9 10	5,920 14 0	
South Násik ...	Do. ...	35 0 0	1,67,544 5 7	1,67,579 5 7	1,43,212 5 7	24,367 0 0	
North Násik ...	Do. ...	.....	66,979 13 11	66,979 13 11	66,979 13 11	.....	
Násik Sub-Division.	Do. ...	.....	54,115 1 4	54,115 1 4	54,004 1 4	111 0 0	
Working Plans	Do. ...	.....	0 12 0	0 12 0	0 12 0	.....	
	Total, Northern Circle.	63,832 8 0	23,02,799 1 11	23,66,631 9 11	23,25,836 3 11	40,795 6 0	
CENTRAL CIRCLE.							
Direction ...	Various sources ...	.....	654 3 0	654 3 0	654 3 0	.....	
East Khándesh.	Timber and other forest produce.	.....	1,85,903 14 0	1,85,903 14 0	1,85,903 14 0	.....	
West Khándesh.	Do. ...	3,053 0 0	2,56,465 12 3	2,59,518 12 3	2,57,830 8 3	1,688 4 0	
North Khándesh.	Do. ..	604 8 0	1,35,513 15 8	1,36,118 7 8	1,36,118 7 8	.....	
Poona ...	Do. ...	7,502 0 0	1,74,219 0 1	1,81,721 0 1	1,77,827 0 1	3,894 0 0	
Kolába ...	Do. ...	656 0 0	2,12,373 14 4	2,13,029 14 4	2,12,354 14 4	675 0 0	
Sátára ...	Do. ...	1,101 9 0	76,072 2 0	77,173 11 0	76,543 11 0	630 0 0	
Working Plans.	Do. ..	.....	18 8 0	18 8 0	18 8 0	.....	
	Total, Central Circle ...	12,917 1 0	10,41,221 5 4	10,54,138 6 4	10,47,251 2 4	6,887 4 0	
SOUTHERN CIRCLE.							
Kánara, Northern.	Timber and other forest produce.	3,89,678 0 3	10,60,766 2 0	14,50,444 2 3	8,33,381 10 3 *651 8 0	6,16,411 0 0	* Revenue written off during the year.
Kánara, Eastern.	Do. ..	1,14,086 3 2	4,75,717 7 11	5,89,803 11 1	4,42,057 10 0 *8 9 1	1,47,737 8 0	
Kánara, Central.	Do. ...	16,569 9 1	1,63,212 0 6	1,79,781 9 7	83,296 0 2	96,485 9 5	
Kánara, Southern.	Do. ...	1,900 15 6	44,656 8 10	46,557 8 4	39,053 8 9	7,503 15 7	
Kánara, Western.	Do. ...	26,054 13 5	4,41,877 1 0	4,67,931 14 5	2,89,548 10 9	1,78,383 3 8	
Belgaum ..	Do. ...	45,305 15 8	5,25,214 6 3	5,70,520 5 11	4,62,701 3 9	1,07,819 2 2	
Dhárwár-Bijápur.	Do. ...	311 14 8	91,026 5 7	91,338 4 3	79,122 9 11 *55 4 0	12,160 6 4	
Ratnágiri ...	Do. ..	.....	443 2 3	443 2 3	443 2 3	.....	
Direction ...	Various sources ...	.....	1,822 13 1	1,822 13 1	1,822 13 1	.....	
Working Plans.	Do. ...	.....	13 8 0	13 8 0	13 8 0	.....	
	Total, Southern Circle...	4,93,907 7 9	28,04,749 7 5	33,98,656 15 2	22,31,440 12 11 *715 5 1	11,66,500 13 2	
SIND CIRCLE.							
Direction ...	.....	.....	.....	.....	.....	.....	
Sukkur ...	Timber and other forest produce.	115 8 0	1,56,789 12 6	1,56,905 4 6	1,21,443 4 6	35,462 0 0	
Shikarpur ...	Do. ..	.....	76,191 1 2	76,191 1 2	71,124 13 2	5,066 4 0	
Lárkána ...	Do. ..	.....	54,032 10 8	54,032 10 8	48,760 2 8	5,272 8 0	
Hyderabad ...	Do. ...	5,415 0 0	2,86,513 9 2	2,91,928 9 2	2,91,808 1 2	120 8 0	
Karachi ...	Do. ..	19,369 14 1	1,14,482 12 11	1,33,852 10 11	1,00,225 8 0	33,627 2 11	
Thar and Párkar.	Do. ...	.....	814 6 0	814 6 0	814 6 0	.....	
	Total, Sind Circle ...	900 6 0	6,88,824 4 5	7,13,724 10 5	6,34,176 3 6	79,548 6 11	
	GRAND TOTAL ...	6,95,557 6 9	68,37,594 3 1	75,33,151 9 10	62,38,704 6 8 *715 5 1	12,93,731 14 1	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1917-1918.*

Division.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
North Thána ...	...	72 12 0	72 12 0	.....	3,159 12 0	3,159 12 0	3,087 0 0	...	
Surat ...	...	38,369 12 6	38,369 12 6	22,000 0 0	27,869 12 6	49,869 12 6	11,500 0 0	...	
Total, Contractors ...	...	38,442 8 6	38,442 8 6	22,000 0 0	31,029 8 6	53,029 8 6	14,587 0 0	...	
Disbursers.									
Direction ...	...	1,296 4 0	1,296 4 0	.....	1,296 4 0	1,296 4 0	.....	...	
Panch Mahals ...	...	36,172 12 9	36,172 12 9	790 10 10	35,770 14 9	36,561 9 7	388 12 10	...	
West Thána ...	...	62,507 9 7	62,507 9 7	1,709 2 5	62,344 11 5	64,053 13 10	1,546 4 3	...	
North Thána ...	...	78,867 13 10	78,867 13 10	2,613 11 1	79,990 6 4	82,604 1 5	3,736 3 7	...	
East Thána ...	...	55,437 1 11	55,437 1 11	2,571 3 8	54,156 13 0	56,728 0 8	1,290 14 9	...	
Surat ...	...	1,07,325 4 6	1,07,325 4 6	5,205 4 0	1,06,765 8 0	1,11,970 12 0	4,645 7 6	...	
North Násik ...	...	25,069 7 3	25,069 7 3	401 3 0	25,310 2 5	25,711 5 5	641 14 2	...	
South Násik ...	...	30,642 2 2	30,642 2 2	1,002 1 4	31,268 1 11	32,270 3 3	1,628 1 1	...	
Sub-Division Násik ...	...	20,394 0 6	20,394 0 6	352 2 10	20,761 2 0	21,113 4 10	719 4 4	...	
Total, Disbursers ...	...	4,17,712 8 6	4,17,712 8 6	14,645 7 2	4,17,663 15 10	4,32,309 7 0	14,596 14 6	...	
TOTAL, N. C. ...	...	4,56,155 1 0	4,56,155 1 0	36,645 7 2	4,48,693 8 4	4,85,338 15 6	29,183 14 6	...	
CENTRAL CIRCLE.									
Contractors.									
Direction ...	2,500	.....	2,500 0 0	.....	2,500 0 0	2,500 0 0	.....	...	
West Khándesh ..	...	8,660 7 3	8,660 7 3	.....	10,550 0 0	10,550 0 0	1,889 8 9	...	
Total, Contractors ...	2,500	8,660 7 3	11,160 7 3	.....	13,050 0 0	13,050 0 0	1,889 8 9	...	
Disbursers.									
Direction ...	...	1 2 0	1 2 0	1 2 0	.....	1 2 0	.....	...	
East Khándesh ...	...	63,798 10 6	63,798 10 6	607 11 3	64,660 13 4	65,268 8 7	1,469 14 1	...	
West Khándesh ..	...	76,189 13 8	76,189 13 8	5,188 6 2	73,008 15 1	78,197 5 3	2,007 7 7	...	
North Khándesh ..	...	83,930 5 10	83,930 5 10	1,782 6 1	84,017 1 5	85,799 7 6	1,969 1 8	...	
Kolába ...	...	70,911 8 7	70,911 8 7	843 15 1	71,610 1 7	72,454 0 8	1,542 8 1	...	
Poona ...	...	76,341 10 1	76,341 10 1	1,232 4 6	76,577 2 5	77,809 6 11	1,467 12 10	...	
Sátára ...	...	56,515 1 4 470 5 0	56,985 6 4	1,391 14 5	56,515 0 0	57,906 14 5	921 8 1	...	
Working Plans ...	...	1,840 0 0	1,840 0 0	.....	1,840 0 0	1,840 0 0	.....	...	
West Khándesh Famine Fodder. ...		69,400 0 0	69,400 0 0	.....	84,400 0 0	84,400 0 0	15,000 0 0	...	
Total, Disbursers ...	...	4,99,298 9 0	4,99,298 9 0	11,047 11 6	5,12,629 1 10	5,23,676 13 4	24,378 4 4	...	
TOTAL, C. C. ...	2,500	5,07,959 0 3	5,10,459 0 3	11,047 11 6	5,25,679 1 10	5,36,726 13 4	26,267 13 1	...	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1917-1918*—concld.

Division.	Department Debtor.			Department Creditor.			Balance Due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
Kánara, N. D. ...	...	42,895 8 10	42,895 8 10	17,984 12 8	60,555 5 5	78,540 2 1	35,644 9 3	...	
Belgaum	...	91,774 14 3	91,774 14 3	84,887 1 4	83,686 7 8	1,68,573 9 0	76,798 10 9	...	
Kánara, W. D. ...	...	69,773 0 6	69,773 0 6	46,702 8 0	1,37,220 0 0	1,83,922 8 0	1,14,149 7 6	...	
Kánara, S. D. ...	...	2,242 4 0	2,242 4 0	3,938 7 3	6,800 0 0	10,733 7 3	8,496 3 3	...	
Kánara, E. D. ...	...	76,926 14 8	76,926 14 8	19,703 11 7	97,217 0 0	1,16,920 11 7	39,993 12 11	...	
Kánara, C. D. ...	...	32,608 14 0	32,608 14 0	10,926 2 10	57,352 12 6	68,278 15 4	35,670 1 4	...	
Dhárwár-Bijápur ...	...	1,268 3 0	1,268 3 0	.....	1,268 3 0	1,268 3 0	.....	...	
Total, Contractors ...	...	3,17,489 11 3	3,17,489 11 3	1,84,142 11 8	4,44,099 12 7	6,28,242 8 3	3,10,752 13 0	...	
Disbursers.									
Dhárwár-Bijápur ...	...	29,040 5 5	29,040 5 5	624 14 1	29,009 3 7	29,634 1 8	593 12 3	...	
Belgaum	...	2,04,026 15 9	2,04,026 15 9	14,472 3 8	2,15,034 14 2	2,29,507 1 10	25,480 2 1	...	
Kánara, N. D. ..	...	1,44,537 3 3	1,44,537 3 3	5,891 12 1	1,55,270 7 5	1,61,162 3 6	16,625 0 3	...	
Kánara, W. D. ...	...	1,14,818 15 1	1,14,818 15 1	8,657 12 1	1,26,691 8 1	1,35,348 14 4	20,529 15 3	...	
Kánara, S. D. ...	...	41,005 12 1	41,005 12 1	688 1 4	41,080 0 0	41,768 1 4	762 5 3	...	
Kánara, E. D. ...	...	1,03,912 9 3	1,03,912 9 3	4,992 5 11	1,08,153 0 0	1,13,145 5 11	9,232 12 8	...	
Kánara, C. D. ...	...	1,02,302 11 1	1,02,302 11 1	3,342 0 10	1,12,066 0 0	1,15,408 0 10	13,105 5 9	...	
Ratnágiri	...	3,847 11 5	3,847 11 5	26 8 0	3,821 3 5	3,847 11 5	.....	...	
Direction	...	382 0 8	382 0 8	.....	1,128 5 8	1,128 5 8	746 5 0	...	
Working Plans ...	...	.....	.....	.....	.....	.....	.....	...	
Total, Disbursers ...	...	7,43,874 4 0	7,43,874 4 0	38,695 4 2	7,92,254 10 4	8,30,949 14 6	87,075 10 6	...	
TOTAL, S. C. ...	...	10,61,363 15 3	10,61,363 15 3	2,22,837 15 10	12,36,354 6 11	14,59,192 6 9	3,97,828 7 6	...	
SIND CIRCLE.									
Contractors.									
Direction	...	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	...	
Lárkána	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Karáchi	...	30 0 0	30 0 0	.....	30 0 0	30 0 0	.....	...	
Hyderábad	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Shikarpur	...	15 0 0	15 0 0	.....	15 0 0	15 0 0	.....	...	
Total, Contractors...	...	185 0 0	185 0 0	.....	185 0 0	185 0 0	.....	...	
Disbursers.									
Lárkána	...	16,368 3 7	16,368 3 7	508 13 3	16,384 9 3	16,893 6 6	525 2 11	...	
Karáchi	...	31,066 2 9	31,066 2 9	1,154 0 1	32,750 14 11	33,904 15 0	2,838 12 3	...	
Hyderabad	...	25,414 15 9	25,414 15 9	489 6 2	28,528 14 8	29,018 4 10	3,603 5 1	...	
Sukkur	...	31,131 1 11	31,131 1 11	1,432 2 7	30,796 14 1	32,229 0 8	1,097 14 9	...	
Direction ...	...	2,529 13 2	2,529 13 2	.....	2,530 0 0	2,530 0 0	0 2 10	...	
Shikarpur ...	...	11,579 4 10	11,579 4 10	.....	11,856 13 3	11,856 13 3	277 8 5	...	
Total, Disbursers ...	...	1,18,089 10 0	1,18,089 10 0	3,584 6 1	1,22,848 2 2	1,26,432 8 3	8,342 14 3	...	
Total, Sind Circle ...	...	1,18,274 10 0	1,18,274 10 0	3,584 6 1	1,23,033 2 2	1,26,617 8 3	8,342 14 3	...	
GRAND TOTAL ...	2,500	21,43,752 10 6	21,46,252 10 6	2,74,115 8 7	23,33,760 3 3	26,07,875 11 10	4,61,623 1 4	...	

BOMBAY : PRINTED AT THE GOVERNMENT CENTRAL PRESS.

Administration Report of the Forest Circles in the Bombay Presidency, including Sind, for the year 1917-18.

GOVERNMENT OF BOMBAY.

REVENUE DEPARTMENT.

Resolution No. 7266.

Bombay Castle, 17th July 1919.

Memorandum from the Commissioner, S. D., No. 4961 dated 23rd October 1918—Forwarding his remarks on the Forest Administration Report of the Southern Circle for the year 1917-18.

Memorandum from the Commissioner, S. D., No. 5183 dated 6th November 1918—Forwarding his remarks on the Forest Administration Report of the Central Circle for the year 1917-18 so far as the areas in the Southern Division are concerned.

Memorandum from the Commissioner in Sind No. Rev.—1396 dated 2nd December 1918—Forwarding his remarks on the Forest Administration Report of the Sind Circle for the year 1917-18.

Memorandum from the Commissioner, N. D., No. F.O.R.—47 dated 14th December 1918—Forwarding his remarks on the Forest Administration Report of the Northern Circle for the year 1917-18.

Memorandum from the Commissioner, C. D., No. B.—1569 dated 19th December 1918—Forwarding his remarks on the Forest Administration Report of the Northern and Central Circles for the year 1917-18 so far as the areas in the Central Division are concerned.

Letters from the Chief Conservator of Forests, Bombay Presidency, Nos. 19, 111, 122 and 182 dated, respectively, 12th April, and 9th, 10th and 31st May 1919—Submitting the proof of the Forest Administration Report for the year 1917-18 including his own remarks and those of the Commissioners on the Report.

Memorandum from the Commissioner, N. D., No. F.O.R.—47 dated 21st May 1919—Forwarding a letter No. 478 dated 18th idem from the Conservator of Forests, N. C., who forwards copies of his letter No. 261 dated 25th April 1919 to the Collector of the Panch Mahâls and of the Collector's reply No. F.O.R. dated 7th May 1919 on the subject of a fuel depôt at Dohad.

RESOLUTION.—This is the first year in which the Forest Administration Report has been reviewed by the Chief Conservator and it is not necessary to add to his expert analysis of the figures. The following remarks are necessary to show to what extent Government accept the Chief Conservator's conclusions.

2. On the need for further and more reliable establishment and as regards the necessity for further expenditure on roads and bridges, Government are in full accord with the opinions expressed. Proposals are under consideration for the employment of special Forest Engineers both for the ordinary work of improving communications and for specialised assistance by means of mechanical appliances for the extraction and transport of timber in difficult country. The urgent need for the immediate increase of superior establishment has already engaged the attention of Government and proposals have been made with a view to meet the urgent demand for responsible supervision. The Department's contributions in personnel to war operations, combined with the temporary closure of recruitment, fully account for the shortage of officers judged by the existing cadre. But Government have also recognized the necessity for adding to existing charges with a view to the quicker development of their valuable forest property, and the conclusion is obvious that in the light of the above the department has been most seriously under-manned. Another contributory cause to the excessive burden placed upon all members of the establishment has been the heavy demands of the Munitions Board, who have acknowledged in suitable terms the valuable assistance received from the department.

3. In these circumstances the Governor in Council does not propose to criticise too closely the year's output of work. Much remains to be done to develop the forest areas commercially and it is possible that radical

changes will be necessary in relief of over-worked scientific officers with a view to make forest resources more available to the general public. The statement that in the Northern Circle departmental officers have no clear ideas of the market value of their produce is at least suggestive, and even on the question of exploiting agencies it is possible that the last word has not yet been said.

4. Some differences of opinion are noted as between the Revenue and the Forest officers on which Government orders are necessary. As regards the action taken in Belgaum in connection with fire-protection measures, the statement that firing has always been intentional in that district somewhat begs the question. The Collector's argument that at least some of those who assist the Forest officials in putting out the fires have not been instrumental in starting them and should therefore be rewarded in some way, is in accordance with Government's orders on the point as indicated by the Commissioner, S. D. The precise orders to be issued in such cases cannot be laid down definitely by Government, but they feel assured that any differences of opinion can be successfully resolved after hearing all arguments, and the Commissioner, whose position is clearly indicated in Government Resolution No. 11615 dated 28th November 1918, will see that forest interests are duly observed so far as is compatible with fair treatment for the individual. On the larger question of checking the present rate of depopulation in the Kánara forests Government prefer to suspend their opinion for the present as the process is still under investigation by the Revenue and Forest officers and hope that it will be possible to devise concerted measures which will meet the views of all officers concerned. The suggestion that the department should undertake the destructive distillation of wood is not one that Government can endorse. Operations will probably be necessary on a very large scale and experiments can be far better carried out by the Department of Industries when that department has been fully equipped for such work.

5. Government have read with interest the remarks of the Chief Conservator on the subject of the Land Revenue administration by the Forest Department. The subject has not been commented on by the Commissioners, Central Division and Southern Division, and might with advantage receive more attention when future reports are submitted. It is a matter for satisfaction that the administration of the units committed to the charge of Forest officers has been uniformly successful: in particular Mr. Starte's management of the Akráni tract deserves favourable notice. Government are inclined to agree with the Chief Conservator that the removal of dual control and the transfer to the officers of the Forest Department of power to provide inducements in the form of land, grazing and similar conveniences on favourable terms may encourage settlement in forest tracts and help to provide the Forest Department with a permanent supply of labour. The Chief Conservator's suggestion that the system should be extended to tracts such as North Thána and Peint Táluka of Násik should, in the opinion of Government, receive careful consideration.

6. The year has been marked by high prices, urgent and extraordinary demands on the forests on their commercial side, and unremitting exertions by the few Forest officers left to organize both special and ordinary operations, and the Governor in Council, fully recognizes the admirable work done by the department.

SHAMRAO D. MANKAR,
Acting Under Secretary to Government.

G. R. No. 7266, R. D., dated 17th July 1919.

To

*The Commissioner in Sind,
*The Commissioner, N. D.,
*The Commissioner, C. D.,
*The Commissioner, S. D.,
*All Collectors, including the Deputy Commissioner, Upper Sind Frontier,
*The Director of Agriculture,
*The Chief Conservator of Forests, Bombay Presidency,
The Conservator of Forests, N. C.,
The Conservator of Forests, C. C.,
The Conservator of Forests, S. C.,
The Deputy Conservator of Forests in charge Sind Circle,
*The Settlement Commissioner and Director of Land Records,
*The Director of Industries,
*The Accountant General,
*The Compiler, General Administration Report,
*The Oriental Translator to Government,
*The Public Works Department of the Secretariat,
*The Separate Department of the Secretariat (for the Reading Room for the Honourable Members of the Legislative Council),
*The Editors' Tables and Editors of Newspapers,
†The Government of India,
†The Under Secretary of State for India.

*With copies of the Report.
†By letter.

No. of 1919.

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ADMINISTRATION REPORT

OF THE

FOREST CIRCLES IN THE BOMBAY PRESIDENCY

(INCLUDING SIND)

FOR THE YEAR 1918-19

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1920
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CORRIGENDA.

Page 11, line 10, *delete* " (*i*)."

„ 11, „ 32, *for* " (*ii*) " *read* " (*b*). "

„ 103, line 2 of footnote, *for* " in Chapter II, Section V (*c*)—Outturn and sources of forest produce " *read* " against Southern Circle in Chapter II, Section V (*b*) (iii)."

„ 108, in item 10 of minor produce under Northern Circle *for* " Managnese " *read* " Manganese."

„ 109, lines 2 and 3 of footnote, *for* " Statement in Chapter II, Section V (*c*) outturn and sources of forest produce " *read* " Statements in Chapter II, Section V (*b*) (*i*) and (*iii*) respectively."

„ 120, against budget head I-d under Poona Division *for* " 6,060-10-0 " *read* " 6,060-0-0."

REPORT ON THE FOREST ADMINISTRATION OF THE BOMBAY PRESIDENCY, INCLUDING SIND, FOR THE YEAR 1918-19.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—Alteration in Area (Forms Nos. 7, 7A, 7B and 7C).

The areas of forests at the beginning and the close of the year compare as follows :—

Area on 1st July 1918. Square miles.					Area on 30th June 1919. Square miles.				
In charge of the Forest Department.		In charge of the Revenue Department.		Total.	In charge of the Forest Department.		In charge of the Revenue Department.		Total.
Reserved.	Protected.	Reserved.	Protected.		Reserved.	Protected.	Reserved.	Protected.	
12,091.2	484.4	1,850.8	549.		12,100.4	487.4	1,834.2	548.9	
12,575.6		2,399·8		14,975.4	12,587.8		2,383.1		14,970.9

There was a net gain of 12·2 square miles in the area in charge of the Forest Department and a net loss of 16·8 square miles in that in charge of the Revenue Department. Details are given in Forms Nos. 7B and 7C, respectively.

One hundred and fifty-seven acres were afforested in the Northern Circle for the Casuarina plantations.

In the Central Circle, 23.9 square miles of waste numbers were added to the area under the Forest Department in West Khandesh and 29 square miles were thrown out of the Revenue pastures in the Nagar, Sholapur, Poona and Satara districts in favour of cultivation.

In the Southern Circle, 4·4 square miles of waste lands were afforested and 3.5 square miles were excluded ; the majority of which, 3 square miles, were made into " Betta " in Kanara. There was thus a net increase of ·9 square miles in the forest area. The Ratnagiri forests consisting of 19 square miles were transferred to the charge of the Revenue Department and 6·3 square miles of Revenue pastures in Bijapur were transferred *vice versâ*. The transfer of further area in this latter collectorate is under consideration.

In Sind 27 square miles were gained by accretions and 30.9 square miles lost by erosions along the river Indus ; a net loss of 3.9 square miles.

2.—Forest Settlements (Form No. 8).

Settlement work consisted of the notification of 29·2 square miles of afforested area under section 19 of the Indian Forest Act and of 4.1 square miles of such area under section 4 in the three Presidency circles. The question of acquisition of teak bearing lands situated within the demarcation lines in Poona and Satara of the Central Circle is under consideration. In Sind, the 165 acres of alluvial land which awaited notification under section 19 of the Forest Act were eroded by the action of the river. No settlement work remains to be done in any circle, except minor afforestations or disforestations as they crop up from time to time.

The Conservator, Southern Circle, states that no progress was possible with the in-forest settlements in Kanara, referred to last year, owing to prevalence of influenza.

3.—Demarcation (Form No. 9).

The total length of exterior boundary at the close of the year fell by 216 miles. This decrease is shared by the Northern (20 miles) and Southern (210 miles) circles and counterbalanced by increase of 14 miles in Sind. In the Northern Circle it is due to rectifications, in the Southern Circle to transfer of Ratnagiri forests to the Revenue Department and, in Sind, to accretions.

No new work was done in the Northern Circle owing to extensive fodder famine operations. Thirteen miles of exterior new boundary in the Central Circle, 24 miles in the Southern Circle and 12 in Sind were demarcated. One hundred and four miles in the Northern, 4 in the Central and 117 in the Southern Circle, in all 225, remain to be dealt with.

In the Southern Circle, demarcation of 116 miles in Dharwar and 23 miles in Belguam of internal boundary of Revenue pastures transferred to this department was undertaken during the year.

In Sind 73·4 square miles of kacha (accretions) out of the last year's 100 remain to be divided into half-mile square compartments by cut rides 20 feet wide; 84 miles of such existing compartments were cut during the year, of which 72 were done free and the rest were paid for.

Total cost on new work was Rs. 502 and on repairs Rs. 5,385, in all Rs. 5,887.

4.—Forest Surveys (Form No. 10).

Surveys by the Survey of India Department are complete. No departmental survey of alluvial lands in Sind was carried out during the year.

The total expenditure under the head "Constitution of State Forests" during the year under review and the preceding year compares as follows:—

Circle.	1918-19.	1917-18.	Difference.
	Rs.	Rs.	Rs.
Northern ..	2,063	6,260	—4,197
Central ..	2,501	4,472	—1,971
Southern ..	2,246	5,471	—3,225
Sind ..	..	122	— 122
Total ..	6,810	16,325	—9,515

The decrease is contributed to by all the circles and is due to less new work done under "Demarcation" and smaller sums paid on account of compensation for lands acquired.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation and Management.

(a) *Preparation and Control of Regular Working Plans.*

Preparation—(Form No. 11).—Also during the year under review no new plans were prepared or sanctioned, owing to want of officers. In the Southern Circle the Conservator continued to hold charge of the Working Plans Division and in the Northern and Central Circles these charges have been held by the Divisional Forest Officers, West Nasik and Poona, respectively, in addition to their own duties.

The progress effected in connection with the works referred to last year was—

In the Northern Circle, the revised Thana working plan is still pending with the Conservator; data for revision of the Peint plan have been collected and a preliminary report is awaited. The revised plan for the Satpura forests in the Central Circle was completed and will be shortly submitted to Government. In the meanwhile the prescriptions of the plan are being carried out. The revised plan for the Poona forests is still pending owing to the deputation of Mr. Thomson who undertook the work. The consolidated revised plan for the Sukkur, Shikarpur and Larkana Divisions in Sind is under modification. The three plans

in the Southern Circle referred to last year were sanctioned by Government. These are :—

	Area involved. Square mies.	System of working.	Cost per square mile.
1. Arbail Slopes ..	27.88	Selection ..	208
2. Kalghatgi Range ..	66.	Coppice with standards.	99
3. Bankapur-Hangal Ranges. ..	55.54	Do. ..	99

New works done or undertaken.—

Northern Circle.—The Conservator states that greater progress was not possible for want of a whole-time Working Plans Officer.

Central Circle.—A plan for the Matheran plateau forests which was undertaken and completed during the year has just reached the Chief Conservator. The plan for the Casuarina area in Kolaba is under revision. A plan for the Satara teak and scrub jungles is under consideration. The Conservator suggests that a whole-time Working Plans Officer be appointed soon, for organizing the important forest areas in Navapur and Nandurbar of the West Khandesh Division and for dealing with the existing plan for the Deomogra Reserve which is overdue for revision.

Southern Circle.—Revision of the Yellapur and Mundgod High Forest plans was undertaken by Mr. Edie, Divisional Forest Officer, in addition to his own duties.

The Supa and Haliyal High Forest plans, the 30 year cutting cycle of which has come to a close, have become due for revision. The necessity of a special Working Plans Officer for this work is urgent.

From Form No. 11, it will be seen that out of the total forest area of 12,588 square miles, sanctioned working plans exist for 7,841·5 square miles, *i.e.*, 62 per cent., that out of these 2,850 square miles are in progress of revision and that revision is required for 1,765 square miles. New plans are in course of preparation for 1,385·5 square miles, 11 per cent., while plans have still to be taken in hand for an area of 1,288 square miles, 10·8 per cent., and no plans are considered to be necessary at present for an area of 2,072 square miles—16·5 per cent. of the whole.

Control—(Form No. 11a).—The provisions of the existing working plans were acted up to as far as possible.

General scarcity of food for man and beast throughout the year combined with influenza and the supply of war-material during the first half of the season militated against ordinary forest work and the necessity of turning available labour onto famine-fodder operations had the effect of still further increasing the arrears already existing in working plans' prescriptions. This was most noticeable in the Southern Circle where labour is always difficult to get in sufficient quantity. In the North Dangs working series of the Northern Circle, also, similar difficulties of labour and transport perpetuate arrears. Every possible effort is being made to improve matters but the available staff is and has been lamentably insufficient for the purpose. Form No. 11*a* gives the extent of arrears in all Circles.

(*b*) *Preliminary Working Plans.*

There were none in the Central and Sind Circles. Data are being collected for the preparation of a regular working plan for the Central Dangs forests in the Northern Circle. In the Southern Circle, a preliminary plan for the Bijapur forests was submitted by the late Working Plans Officer who collected the data; and the lines on which the revision of the Yellapur and Mundgod High Forests should be conducted were discussed and settled in consultation with the Chief Conservator.

(c) *Plans of Operations.*

These were duly prepared and carried out as far as circumstances permitted. They were hampered in all circles by influenza, scarcity and fodder famine operations, more especially in the Southern Circle, where the Conservator states the contractors were greatly handicapped and the exploitation of timber is in arrears in all the divisions.

2.—Communications and Buildings (Form No. 12.)

(a) *Roads and Bridges.*

A great deal still needs to be done under this head in the three Presidency circles, for the development of the forest resources and it is dependent on funds and skilled staff. The matter is under the consideration of Government.

The amount of work done and the cost incurred on communications during the year under review and the previous year compare as follows :—

Year.	New work.		Repairs.		Total cost.
	Length miles.	Cost.	Length miles.	Cost.	
		Rs.		Rs.	Rs.
1918-19 ..	184	3,86,600	936	1,64,073	5,50,673
1917-18 ..	117½	79,913	665	76,912	1,56,825
Difference ..	+66½	+3,06,687	+271	+87,161	+3,93,848

The increase occurs in the Northern and Southern Circles.

In the Northern Circle, 52 miles of new roads were constructed at a cost of Rs. 38,134 against 45 miles for Rs. 18,421 in the previous year and the usual repairs to existing roads were carried out for Rs. 7,736. A road in the Dangs from the Baroda boundary near Mohapada to the Navapur-Tadpada road was surveyed by the Forest Engineer, Mr. Pipe, and the plan and estimates have been sanctioned. This road will join the Tapti Valley Railway and will compensate for its cost in a few years.

In the Central Circle no new roads were made. A road from Dhadgaon to Shahada in the Akrani was surveyed by the Public Works Department and the construction of the Dhadgaon-Mandvi section was undertaken by the Forest Department as a famine relief measure. The cost was Rs. 4,291. Certain cart-tracks were improved in the Satpuras. Good roads are essential to open out these large and inaccessible forests for exploitation. Repairs to existing roads and cart-tracks cost Rs. 5,292.

In the Southern Circle, the Alnavar-Dandeli Railway was opened for traffic on 1st February 1919. The cost debited on its account during the year was Rs. 2,58,075 in addition to Rs. 2,75,444 charged in the previous year—total Rs. 5,33,519. A survey for extension of the line to Bhagvati was completed. One hundred and eleven miles of new roads were built at a cost of Rs. 86,100 as against 31 miles for Rs. 57,296 in the previous year. Cost of repairs to existing roads amounted to Rs. 1,48,286 against Rs. 60,837. In the Kanara North, East and West Divisions much new work was done and the roads are rapidly improving. Schemes for roads in the other two divisions of the district also are under consideration. The Executive Engineer on special duty checked surveys and gave instructions for bridges and culverts in all the five divisions. The Gunji-Shiroli road in Belgaum referred to last year was completed. Special road works were undertaken in this division as a famine relief measure and Rs. 13,328 were spent on their account.

Sind requires no real forest roads. The 20 foot compartment rides, which are kept in repair, free of cost, serve the purpose of transport through the forests and, outside them, the river.

(*b*) *Buildings.*

The following compares the expenditure incurred on buildings during the two years :—

Year.	New works.	Repairs.	Total.
	Rs.	Rs.	Rs.
1918-19 ..	1,32,881	42,229	1,75,110
1917-18 ..	52,233	16,349	68,582
Difference ..	+80,648	+25,880	+1,06,528

The total outlay shows an increase of Rs. 1,06,528 over that of the preceding year. This is shared by the Northern and Southern Circles under both heads. Operations under this head, side by side with communications, form a factor in the development of forests, and must prove in the end a measure of economy. But owing to financial considerations, expenditure in their construction was curtailed in the past years. Houses for subordinates are still badly needed more particularly in the Northern and Central Circles. As the financial stringency is now being relaxed, steps are being taken to carry out the schemes gradually as funds permit.

The Northern Circle spent Rs. 64,269 on new works against Rs. 21,071 in the previous year ; the Central Circle, Rs. 10,347 against Rs. 18,500 ; the Southern Circle, Rs. 58,082 against Rs. 9,262 ; and Sind Rs. 183 against Rs. 3,400.

(*c*) *Miscellaneous Works.*

The expenditure under this head for all the circles was Rs. 23,270 against Rs. 19,548 last year.

In the Northern Circle, 10 new wells cost Rs. 2,862 and repairs Rs. 1,085. In the Central Circle, 2 new wells were completed and 8 were begun at a cost of Rs. 1,944 and repairs were carried out for Rs. 475. In the Southern Circle, Rs. 1,730 were spent on blasting rocks in the Kaneri river to facilitate floating of timber, 12 new wells and the telephone service in the Kanara North and East Divisions cost Rs. 4,650 and repairs to existing wells, tanks, etc., Rs. 4,790. New minor irrigation works in Sind were carried out for Rs. 1,938 and repairs to existing ones for Rs. 3,802.

3.—Protection of Forests.

(*a*) *General Protection* (*Form No. 13*).

The following statement compares the number of forest offences for the two years 1917-18 and 1918-19 and the average of the preceding three years :—

Circle.	A Cases taken into Court.				B Cases compounded.				C Cases undetected.				Total.				Grand Total.		
	Injury to forest by fire.	Unauthorized fellings.	Unauthorised Grazing.	Other offences.	Injury to forest by fire.	Unauthorized fellings.	Unauthorised Grazing.	Other offences.	Injury to forest by fire.	Unauthorized fellings.	Unauthorised Grazing.	Other offences.	Injury to forest by fire.	Unauthorized fellings.	Unauthorised Grazing.	Other offences.	1918-19.	1917-18.	Average of preceding 3 years.
Northern ..	42	109	37	11	61	2,052	2,500	293	282	495	12	12	385	2,656	2,549	316	5,906	6,126	5,836
Central ..	57	169	134	32	96	2,909	2,975	890	207	504	37	13	360	3,582	3,146	935	8,023	7,138	6,794
Southern ..	17	48	15	3	51	1,625	1,516	116	1,226	245	6	5	1,294	1,918	1,537	124	4,373	5,111	5,631
Sind ..	1	75	11	4	2	1,477	1,706	29	248	456	..	1	251	2,008	1,717	34	4,010	3,388	3,894
Total, 1918-19 ..	117	401	197	50	210	8,063	8,697	1,328	1,963	1,700	55	31	2,290	10,164	8,949	1,409	22,812	..	..
	765				18,298				3,749										
Total, 1917-18 ..	55	433	370	82	210	7,309	8,719	1,013	1,477	2,012	52	31	1,742	9,754	9,141	1,126	..	21,763	..
	940				17,251				3,572										
Average of past 3 years.	122	477	217	98	206	7,707	8,210	1,079	1,589	2,424	40	39	1,867	10,607	8,466	1,215	..	..	22,15
	914				17,202				4,042										

As compared with 1917-18 the total shows an increase of 1,049 and exceeds the average by 657. Out of the total number of 22,812 cases, 2,290 cases or 10 per cent. were cases of " Injury by fire ", 10,164 cases or 44.5 per cent. fell under " Unauthorised fellings ', 8,949 cases or 39.2 per cent. were of " Unauthorised grazing " and 1,409 cases or 6.2 per cent. were " Other offences." Increases occurred under the first two and the fourth heads of 548, 410 and 283 cases, respectively. These were counterbalanced by a decrease of 192 cases under the third head.

In the Northern Circle, fire and other offences rose by 111 and 86, respectively, and unauthorised felling and illicit grazing cases declined by 115 and 302, respectively, the result being net decrease of 220 cases for the circle. It is satisfactory to note that inspite of the prevalence of sickness and scarcity and of the war effects, offences were kept within normal limits.

The Central Circle shows increases under all the four heads of 11, 610, 9 and 255, in all 885. The three Khandesh divisions are responsible for the marked increase in felling offences due to abuse of the Anjan leaf concession allowed on account of fodder famine ; instead of simply plucking the leaves the people cut or damaged the trees. The rise in other offences is ascribed mainly to breach of transit rules.

In the Southern Circle, fire and grazing offences increased by 278 and 77 and felling and other offences diminished by 528 and 65, respectively, giving a net decrease of 238 in the total of all cases. The Conservator states that this result is more apparent than real. For the forests, especially in Kanara, actually suffered more from fire and illicit felling than in previous years ; but, owing to prevalence of influenza, there was, for a period, no protective establishment on the spot to report the breaches.

Sind has increases in every class of offences : under fire 148, under unauthorised fellings 443, under illicit grazing 24 and under other offences 7, in all 622. Sukkur, Shikarpur and Karachi Divisions are mainly concerned with these, and they are due principally to fodder famine concessions allowed in forests. Unauthorised fellings chiefly consisted of lopping, stripping and cutting of trees for fodder.

Cases prosecuted fell from 940 in 1917-18 and the average 914 to 765, *i.e.*, by 175 and 149, respectively. Of the total 1,017, including those pending from last year, 653 were disposed of ; of which 575 were successful and 78 resulted in acquittals. Three hundred and forty were pending at the close of the year.

The percentage of acquittals compares as follows :—

Circle.	1918-19.		1917-18.		Percentage.	
	Convictions.	Acquittals.	Convictions.	Acquittals.	1918-19.	1917-18.
Northern ..	138	9	198	9	6.1	4.3
Central ..	312	30	451	46	8.7	9.2
Southern ..	61	21	204	36	25.8	15.0
Sind ..	64	18	79	25	21.9	24.0
Total ..	575	78	932	116	11.9	11

Though the percentage for the Presidency as a whole was almost the same as last year, it was by far the greatest in the Southern Circle, for which the Kanara Central and Southern Divisions are mainly responsible. The Conservator remarks that, in the latter division, the Divisional Forest Officer did not only send on to Court cases which could well have been compounded but generally failed to collect evidence needful for prosecution. Commonly, cases are not properly prepared by incompetent guards and this state of things must continue as long as the responsible charges of rounds are held by guards instead of by foresters.

Compounded cases rose from 17,251 in the previous year and the average 17,202 to 18,198, *i.e.* by 947 and 996, respectively, due generally to the more important cases only being taken to Court. In 16,186 cases compensation of Rs. 90,179 was recovered against Rs. 1,00,477 in 16,183 cases in the previous year.

The average compensation realized per case was :—

	1918-19.	1917-18.
Northern Circle ..	5.5	5.4
Central Circle ..	6.3	7.9
Southern Circle ..	5.2	6.0
Sind Circle ..	4.4	4.3
For the Presidency ..	5.6	6.2

The number of undetected offences stood at 3,749 compared with 3,572 in the previous year and the average 4,042. The increase occurred under fires. It is generally difficult to detect such cases.

Cases of fires and illicit grazing will be dealt with later under their respective sections.

As regards unauthorised fellings, these show an increase of 410 over those of the previous year, which is shared by the Central and Sind Circles as explained already. Also " other offences " have risen by 283. The three circles, Northern (86), Central (255) and Sind (7) are responsible for the increase which is counterbalanced by a fall in the Southern Circle (65).

(*b*) *Protection from Fire* (*Form No. 14*).

The results of fire-protection during the two years compare as follows :—

Circle.	Area attempted to be protected.		Area burnt.		Area actually protected.		Percentage of success.		Cost.		Cost per square mile protected.	
	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.	Rs.
Northern ..	3,258	3,259	56	37	3,202	3,222	98.3	98.9	18,196	20,476	5.7	6.4
Central ..	2,734	2,714	91	177	2,643	2,537	96.6	93.5	11,221	16,360	4.2	6.4
Southern ..	4,107	4,019	640	182	3,467	3,837	84.4	95.5	20,947	20,529	6.0	5.3
Sind ..	1,156	1,160	17	6	1,139	1,154	98.5	99.5	1,254	1,484	1.1	1·3
Total ..	11,255	11,152	804	402	10,451	10,750	92.9	96.4	51,618	58,849	4.9	5.5

The area subjected to regular fire-protection during the year was 11,255 square miles as against 11,152 square miles in the preceding year, an increase of 103 square miles which occurred in the Central (20 square miles) and Southern (88 square miles) Circles, being counterbalanced by small reductions in the Northern (1 square mile) and Sind (4 square miles) Circles. The area burnt rose from 402 square miles to 804, exactly double. This increase is shared by the Northern (19 square miles), Southern (458 square miles) and Sind (11 square miles) Circles, counterbalanced by a reduction of 86 square miles in the Central Circle.

In the Northern Circle, the three Thana divisions are responsible for the increase in the area burnt which is attributed largely to carelessness on the part of the gangs of labourers employed on the extensive fodder famine operations. In the other divisions the results were normal.

The Conservator, Central Circle, ascribes the reduction, which occurred notably in the West (40 square miles) and North (53 square miles) Khandesh divisions, to the great demand for grass and grazing owing to fodder famine. Grass was cut and removed by the people and little was left to burn. There was an increase of 3 square miles in the East Khandesh, due to negligence of subordinates in burning fire-lines. The Divisional Forest Officer remarks on the apathy of the subordinates that " the foresters and guards prefer to leave the fire-tracing to temporary men or to the villagers with the result that big fires occur, which not only damage the jungles but give a great deal of unnecessary trouble to the villagers, who have to climb up from the plains to extinguish them ". Also Kolaba was bad with a failure of 8 square miles which is attributed to the carelessness

of the people while collecting tubers and wild fruits in the forests for food during scarity. The results in the other divisions were nearly normal.

In the Southern Circle, there was a decided set-back. The area attempted to be protected increased by 88 square miles and the area burnt by 458 square miles. The percentage of success was 84.4 against 95.5 in the previous year. All the Kanara five divisions and among them, the North and East divisions principally, are responsible for this extraodinary falling off. The following details will show that the percentage of failure for the year under review in Kanara, the most important forest district in the Presidency, was with a solitary exception, the greatest recorded during the last twenty years:—

1918-19 ..	18.4	1913-14 ..	4.5	1908-09 ..	11.3	1903-04 ..	8·4
1917-18 ..	4.2	1912-13 ..	2.2	1907-08 ..	7.9	1902-03 ..	2.7
1916-17 ..	1.6	1911-12 ..	7.0	1906-07 ..	17.0	1901-02 ..	3.5
1915-16 ..	9.2	1910-11 ..	6.8	1905-06 ..	21.3	1900-01 ..	3.4
1914-15 ..	1.9	1909-10 ..	5.1	1904-05 ..	18.0	1899-00 ..	9.3

In the three coast divisions, *viz.*, Western, Central and Southern, the majority of forests being semi-ever-green, there is little chance of extensive fires occurring. In those divisions the percentages rose from 1.3 to 8.8, 4.1 to 6.5 and 1.3 to 8.8, respectively, whereas in the other two divisions, Northern and Eastern, they increased from 4.7 to 32.3 and 11.1 to 53.3.

In the Dharwar-Bijapur Division, the results were better than they were last year owing to the fact that all available grass was removed by the villagers and hardly any was left to burn.

In Belgaum, although the percentage of success was nearly the same as last year, the damage that accrued was considerable. Extensive areas were burnt in the teak forests and a considerable number of sandal seedlings succumbed and young trees of the same species were damaged.

In Sind the area burnt increased from 3 to 11 square miles. This is attributed chiefly to the unusually low inundation and consequent dearth of fodder grass. People fired the dry useless grass with a view to obtain fresh grass in its stead.

The fires that took place during the two years are classified according to their origin as follows:—

Origin of fire.	Northern Circle.				Central Circle.				Southern Circle.				Sind Circle.				Total.			
	No. of fires.		Area burnt acres.		No. of fires.		Area burnt acres.		No. of of fires.		Area burnt acres.		No. of fires.		Area burnt acres.		No. of fires.		Area burnt acres.	
	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.
A.—Burning of fire-lines.	17	13	635	1,133	19	16	11,616	2,394	9	18	2,225	1,514	1	1	83	12	46	48	14,559	5,053
B.—Crossing exterior lines.	52	28	4,669	2,536	72	87	2,491	27,325	98	57	65,917	4,127	10	..	251	..	232	172	73,328	33,988
C.—Accidents (persons in forest).	67	55	5,157	4,102	117	94	33,158	43,038	151	153	14,104	9,486	67	15	1,926	302	402	317	54,345	56,928
D.—Intentional (persons in forest).	8	18	284	1,797	17	72	3,582	19,894	296	159	42,178	41,459	79	30	3,483	1,658	400	279	49,527	64,808
E.—Railway Engines .	11	7	189	364	15	7	408	64	21	12	8,090	354	5	1	244	15	52	27	8,931	797
F.—Lightning ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
G.—Causes unknown .	225	146	24,747	14,067	139	103	6,969	20,722	719	617	277,023	60,008	89	56	4,698	1,859	1,172	922	313,437	96,656
Total ..	380	267	35,681	23,999	379	379	58,224	113,437	1,294	1,016	409,537	116,948	251	103	10,685	3,846	2,304	1,765	514,127	258,230

There was a marked increase in both the number of fires and the acreage burnt which was shared by all the circles; 2,304 fires occurred during the year burning 514,127 acres against 1,765 fires burning 258,230 acres in the preceding year. There was an increase of 539 fires, while the area burnt was nearly double. On the whole the results of the year were very unsatisfactory.

Government Resolution No. 248 of 12th January 1904 prescribes a statement, to be given in the annual report, showing the areas continuously immune from fire for a period of 7 years. The Northern Circle has omitted to give such information since 1917-18; the Central and Southern Circles have been giving it only for

certain of their divisions and Sind for all its divisions. It is hoped that in future due steps will be taken in all the circles to have a regular record maintained of such areas in all divisions and the details will be furnished in the prescribed form in future reports.

The system of rewarding and punishing villages communally for good and bad protection was continued with the usual satisfactory results.

(c) Protection from Cattle (Forms Nos. 16 and 17).

The forest lands open and closed to grazing during the year were as follows :—

	Sq. m.	Per cent.
Closed to all animals for the whole year	2,648	17·7
Do. part of the year	204	1·3
Open to all animals except browsers for the whole year ..	8,250	55·1
Do. part of the year ..	335	2·3
Open to all animals for the whole year	3,534	23·6
Total forest area ..	14,971	

The most extensive areas left open to grazing occur in the three northern circles. The percentages of such areas to total forest area were :—

86·8 in the Northern, 89·8 in the Central, 66·6 in the Southern and 94·3 in the Sind Circles. These include 2·2 per cent. in the Northern, 2·1 per cent. in the Central and ·1 per cent. in the Southern Circles of areas closed to all animals for part of the year, *i.e.*, until such time as the grass was cut and removed.

The number of animals which grazed during the two years compare as below :—

Circle.	Buffaloes, cows and bullocks.		Goats and sheep.		Camels.		Other animals.		Total.	
	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.
Northern ..	793,438	792,132	192,287	195,600	..	..	1,638	2,182	987,363	989,914
Central ..	962,721	961,045	86,288	87,560	..	..	4,720	9,347	1,053,729	1,057,952
Southern ..	463,583	402,384	7,603	5,582	..	..	1,135	623	472,591	408,589
Sind ..	68,996	53,292	82,577	81,861	3,777	4,543	5,120	7,611	160,470	147,307
Total ..	2,289,008	2,208,853	368,755	370,603	3,777	4,543	12,613	19,763	2,674,153	2,603,762

The increase of 70,391 in the number of cattle grazed occurred chiefly in the Southern (63,002) and Sind (13,163) Circles counterbalanced by small deficits in the Northern (2,551) and Central (4,223) Circles. These differences are only temporary phases.

During the year the grazing fees received amounted to Rs. 3,49,957 as against Rs. 3,37,420 in the preceding year. The value of this at full rates of Re. 1 for cattle and as. 4 for goats and sheep together with the value of free grazing and that allowed at privilege rates would be Rs. 22,64,691 against Rs. 20,73,191 of last year.

Proposals for revision of the existing grazing regulations are under consideration, *vide* paragraph 13 of Government Resolution No. 8669 of 25th August 1919.

The number and kind of animals impounded from open and closed forests compare as follows:—

Circle.	Buffaloes, cows and bullocks.				Sheep and goats.				Other animals.				Total.			
	Open.		Closed.		Open.		Closed.		Open.		Closed.		Open.		Closed.	
	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.
Northern ..	4,224	2,422	39,272	36,225	12,258	18,646	3,865	5,432	20	31	206	467	16,502	21,099	43,343	42,124
Central ..	667	2,016	53,709	39,951	7,556	16,413	6,459	1,241	45	44	487	164	8,268	18,473	60,655	41,356
Southern ..	946	523	11,653	9,914	65	115	5,712	2,918	..	64	29	28	1,011	702	17,394	12,860
Sind ..	1,753	1,982	7,820	6,332	3,214	2,119	8,112	4,616	501	617	2,677	1,745	5,468	4,718	18,609	12,693
Total ..	7,590	6,943	112,454	92,422	23,093	37,293	24,148	14,207	566	756	3,399	2,404	31,249	44,992	140,001	109,033
Average of past 3 years.	5,982		73,944		35,968		17,604		891		2,225		42,841		93,773	

Grand Total.

	1918-19.	1917-18.
Northern Circle ..	59,845	63,226
Central Circle ..	68,923	59,829
Southern Circle ..	18,405	13,562
Sind Circle ..	24,077	17,411
Total ..	171,250	154,025
Average of past 3 years ..	136,614	

The total number of impoundings for the Presidency as a whole rose from 136,614—average of three previous years—and 154,025 of 1917-18 to 171,250 during the year of report, *i.e.*, by 34,636 and 17,225, respectively. The latter increase is made up of excess of 30,968 from closed forests counterbalanced by a decrease of 13,743 from open forests. The former is shared by all the circles while the latter is confined to the Northern and Central Circles.

In the Northern Circle the total number of impoundings diminished by 3,378. There was a considerable increase in those of buffaloes and cows and bullocks, both from open and closed areas but a decrease in those of sheep and goats. This is ascribed to scarcity.

Increases are shown in the Central Circle of 9,094, all from closed areas; in the Southern Circle 309 from closed and 4,534 from open areas and in Sind 750 from closed and 5,916 from open areas. Although a considerable portion of the customarily closed areas was thrown open as a temporary measure of famine relief, the majority of impoundings were still from closed forest, due chiefly to outside cattle which were kept near large villages and trespassed into such areas.

(*d*) *Protection against Injuries from Natural Causes.*

The usual creeper cutting was done by subordinates in all the circles. In the Central Circle, *Lantana* was eradicated in the Kolaba *Casuarina* plantations and prickly pear was similarly treated in the Poona babul areas. In the Southern Circle, as a famine relief measure, the eradication of *Lantana* was undertaken in selected areas. In Sind, frost again is reported to have done considerable damage to coppice growth especially to babul seedlings; porcupines continued to damage young *tali* (*Dalbergia sissoo*) in Sukkur where people were allowed the concession of free grazing on condition of destroying them. Also rats increased in Larkana owing to low inundation and measures for trapping them were continued as far as possible.

Lantana is spreading fast in the Southern Circle in Kanara and Belgaum and is fast becoming a serious pest in parts of the high forest where, twenty years ago, it was practically unknown. Steps are being taken to keep it down where it is

undesirable that it should make undue headway; but in the Dharwar frontier jungles, the thickets are a protection for millions of extremely valuable young sandal plants that live upon its roots—as sandal is of course a parasite—so that, in these places, the problem is somewhat difficult. It will probably, eventually amount to keeping the *Lantana* where it is while devising some method against its spreading. The future may happily unveil some economic use for the stuff; but, so far, it is nothing but an unmitigated pest.

4.—Sylviculture.

(*a*) *Natural Reproduction.*

(*i*) State of existing reproduction.

1. *From seed.*—The year was very unfavourable for reproduction by seed, particularly in the Deccan and Gujarat. In the Northern Circle, progress is reported to have been made in tending seedlings in Thana inspite of Munitions and Fodder operations. Only in the Ghat areas of Satara in the Central Circle, where the rainfall was heavy, was reproduction from seed satisfactory. In the Southern Circle, the Conservator states that, though the year was favourable for seed production and all important species seeded profusely, the failure of the rains checked germination and extensive fires due to prolonged drought killed back the few that sprang up, the damage to sandal being exceptionally severe. Also in Sind, the conditions were equally unpropitious. The inundation was the lowest on record. This and the cessation of the rains combined, completely marred reproduction from seed. Besides, due to these causes, young babul which had not become established, died off in many places. Regeneration however, in low areas, which would otherwise have been submerged, is reported to have been good to such an extent that the seedlings have overtopped the normal flood level and become permanently established.

2. *By coppice.*—It was poor all over owing to failure of rains except in damp areas and below the ghats. Moreover the opening of some of the closed areas to grazing owing to fodder famine caused considerable damage to coppice growth. In the Central Circle, the experiment of cutting the Anjan 12 inches to 18 inches above the level of the ground was continued and the results are awaited.

(*ii*) Tending operations in natural crops.

In the Northern Circle, the Conservator states that work of cutting back ill-formed growth and of freeing promising growth, where necessary, was carried out to a certain extent but no details are given. Similarly the Conservator, Central Circle, states that, in the exploited coupes of the Satpura forests and in some of the Poona Division, unsound and malformed trees of valuable species and inferior species likely to suppress teak were cut back and have produced healthy coppice shoots. In the Southern Circle, the Conservator notes that 11,168 dead or damaged trees were cut out under the "Improvement felling" system in the Northern Division of Kanara and 4,734 bad teak and 2,077 jungle-wood trees were exploited under the same system and 113,000 teak saplings were freed from interfering growth in the Eastern Division. In these two divisions of Kanara and in Belgaum, areas under *Lantana* were cut and cleared. In Sind, thinnings were carried out on an extensive scale in Karachi and to some extent in the other divisions. Also tendings were done in some of the young crops in Karachi with markedly good results.

(*c*) *Artificial Reproduction* (*Form No. 18*).

(*i*) Regular Plantations.

In the Northern Circle, good progress is reported to have been made in the Thana divisions in the regeneration of teak in the exploited coupes, though handicapped by scanty rainfall and want of labour. Thirty-nine acres were added to *Casuarina* plantations in Thana.

In the Central and Southern Circles, the *Casuarina* plantations had to be replanted owing to long breaks in the monsoon. Tarwad (*Cassia auriculata*) seed was sown in selected areas but very few came up owing to drought. The majority of this has germinated in the rains this year and the plants are doing well.

In Sind, 7 acres were added to regular tali (*Dalbergia sissoo*) plantations.

(*ii*) Cultural Operations.

These were undertaken as far as possible in all the circles.

In the Central Circle, the mound planting was continued. Tarwad (*Cassia auriculata*) was sown in all divisions except Kolaba but without success owing to want of rain.

In the Southern Circle much work in the way of planting out and cultivating seedlings was done but the results were not as satisfactory as they ought to have been, owing to the monsoon being unfavourable. In Kanara, N. D., only small areas in the High Forests were taken up and many seedlings died off. In Kanara, E. D., $4\frac{3}{4}$ lakhs of seedlings were planted out and about 4 lakhs of natural seedlings were cultivated. Also dibbling of teak seed was carried out extensively and the results are reported to be promising. In the same division, as an experiment, 35 acres of High Forest on the Kalinadi slopes were clear-cut, the timber extracted, refuse burnt and teak seed sown in patches at 6 feet intervals in April and the whole area was sown with *ragi* in June. The work promises good results. In the Central Division, the clearings and sowings in the High Forest as well as in fuel coupes were only partially successful. In the Southern Division, the experiment of "Taungya" plantation, consisting of cultivation of teak with *ragi* by kumri Marathas, a hill tribe, promises good results. One hundred and forty acres in 14 villages in Honavar and Bhatkal were cleared by the Marathas in the last hot weather and promise well, the teak coming up fast in the moist climate of the Shiravati Valley. The Conservator remarks that the Western Division is the only division where artificial regeneration of teak has been tried on an extensive scale and the results have been distinctly encouraging. Ninety acres in Gund were cleared, burnt and sown last hot weather and promise excellent results. In Belgaum, the cultivation of valuable species was undertaken but the results are reported to be disappointing owing chiefly to subordinates not taking due interest in the work. The year was particularly unfavourable for Dharwar-Bijapur which is a dry area where a good monsoon only occurs once in 10 years.

In Sind, 274 acres of high level lands were treated on the agriculture-cum-forestry system and the results are reported to be satisfactory. One thousand three hundred and thirteen maunds of babul (*Acacia arabica*) and kandi (*Prosopis spicigera*) seeds were sown broadcast in 3,891 acres of exploited coupes and blanks.

5.—Exploitation.

(*a*) *System of Management.*

(*i*) Major Forest Produce.

The different sylvicultural systems in force are :—

Clear fellings.—These were carried out under the uniform method in the Western Mahals, Godra and Kalol in the Northern Circle and gave excellent financial results. In the Central Circle, they were executed in the babul areas of Poona and East Khandesh Divisions and the *Casuarina* areas of the Kolaba Division, the total area dealt with being 7,560 acres. In the Southern Circle, as an experimental beginning, 350 acres in all were subjected to the uniform method of clear felling in the Teak High forests in the five Kanara divisions and Belgaum. This system will be gradually extended in that circle in place of jardinage as subordinates get trained to it. At present, however, both staff and labour are insufficient to try anything on a large scale. In Sind, 15,518 acres were exploited under the system of "reservation by groups" as suggested by the Inspector General of Forests but it is early yet to say anything about the results.

Selection fellings.—These are nominally carried out in the below-ghats of the Nasik Division and particularly in the Dangs in the Northern Circle. It is the only method adopted in the Kanara High Teak forests. Under it, 9,462 trees in all were exploited as against 10,812 in the previous year.

Improvement fellings.—These were executed in the North and South Dangs and Bulsar-Chikhli of the Surat Division and the Anjan forests of the North Nasik Division in the Northern Circle and in the ever-green forests of the Poona Division, in small areas under working plans of the Matheran and Mahableshwar forests and in the three Khandesh Divisions in the Central Circle. In the Southern Circle, such fellings were, as usual, carried out throughout the High Teak forests

in the five Kanara Divisions and Belgaum. The number of trees so exploited was 23,731 against 31,507 in the previous year. In Sind, 73 acres of the Shahuja tali plantation were subjected to this method of felling with a view to supply material to the Munitions. It was, however, eventually sold locally.

Coppice with standards.—Under this system are worked the teak forests of the Surat, Panch Mahals and Nasik Divisions of the Northern Circle and of the Kolaba, Poona and Satara Divisions of the Central Circle. All the fuel and teak pole forests in the five Kanara Divisions and Belgaum of the Southern Circle come under this system, the area cut over being 7,533 acres of organised and 11,244 acres of unorganized forests compared with 7,004 acres and 8,032 acres, respectively.

Unregulated fellings.—These occur in the Central Dangs and were only temporarily extended for Munitions purposes to the North Dangs of the Northern Circle. In all the circles such fellings were, as usual, resorted to for free grants, departmental works and removal of dead and dying trees. Special fellings were made in each one of them to meet the demands of the Munitions for fuel. In the Southern Circle, 5,572 timber trees were felled for that purpose. Also royalty trees in occupied lands and reserved trees in waste lands outside forest limits were felled under this system as need arose. In the Southern Circle, dead and mature sandal trees brought in a revenue of Rs. 63,163 against Rs. 56,540, Rs. 46,482 and Rs. 36,761 in the past three years; the rate per khandy of 560 lbs. rising from Rs. 311, Rs. 422 and Rs. 440 to Rs. 469 for first class billets.

(*ii*) Minor Forest Produce.

Three modes of extracting this produce are in vogue, *viz.*, on permits for local consumption, farming the right of collection for trade and departmental collection for sale at depôts. Permits are given for bamboos, grass, earth, stones, karvi (*strobilanthes callosus*), stakes, thorns and leaves. Departmental collection is resorted to in respect of *mhowra* (*Bassialatifolia*) seed in the Northern and Central Circles and *hirda* (*Terminalia chebula*) in the latter. Other kinds of products such as *shikekai* (*Acacia concinna*), fruits, pods, barks, nuts, gum, flowers, etc., are farmed out to contractors. The total revenue from minor forest produce for the Presidency as a whole during the past five years compares as follows :—

Name of produce.	1918-19.	1917-18.	1916-17.	1915-16.	1914-15.
	Rs.	Rs.	Rs.	Rs.	Rs.
Grass and grazing	3,49,957	3,37,420	3,41,479	3,19,710	3,03,612
Other minor forest produce	13,07,754	10,20,510	9,19,000	9,05,096	8,17,696

It will be seen that the revenue is rising every year, while most of the products are not nearly fully worked out and many are as yet untouched and go to waste. There is a large treasure field for investigation in minor forest produce with a wide cope for utilization branch to investigate and realize by experimental demonstration.

(*b*) *Agency of Exploitation.*

(*i*) Departmental Agency.

The following table compares the outturn of major and minor produce extracted by departmental agency during the last two years :—

Circle.	Year.	Major produce.				Minor produce in value.			
		Timber in thousands.	Fuel in thousands.	Total in thousands.	Sandal wood in value.	Bamboos	Grass.	Other.	Total.
		C. ft.	C. ft.	C. ft.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern ..	1918-19	317	340	657	..	17,042	404	..	17,446
	1917-18	315	139	454	..	5,568	..	204	5,772
Central ..	1918-19	21	276	297	..	..	..	10.796	10,796
	1917-18	40	359	399	..	..	12	29,660	29,672
Southern ..	1918-19	1,702	5,838	7,540	62,163	69,047	..	2,789	71,836
	1917-18	1,839	4,638	6,477	56,540	80,655	127	8,105	88,887
Sind ..	1918-19	47	989	1,036	..	..	..	1,518	1,518
	1917-18	30	513	543	..	..	..	4,948	4,948
Total ..	1918-19	2,087	7,443	9,530	62,163	86,089	404	15,103	1,01,596
	1917-18	2,224	5,649	7,873	56,540	86,223	139	42,917	1,29,279
Difference ..	..	—137	+1,794	+1,657	+5,623	—134	+265	—27,814	—27,683

The total outturn of major produce other than sandalwood for the Presidency as a whole rose by 1,657,000 cubic feet and the value of minor produce extracted dropped by Rs. 27,683. There was a gain of Rs. 5,623 in the value of sandalwood.

In the Northern Circle, main fellings were confined to North Dangs of the Surat Division and 17,830 cubic feet of teak and 6,355 cubic feet of other species were brought to the Songhad depôt in Baroda territory. Thinnings yielded a net revenue of Rs. 23,858. One coupe and three gurcharans were departmentally exploited as an experiment but the results were not satisfactory owing partly to opposition of all contractors to new methods unfavourable to them and partly to inexperience on the part of subordinates conducting the operations. There is, however, no doubt that departmental work properly supervised is more remunerative than contract work as in the latter the produce never fetches its real value. In the Thana revised working plan to be shortly submitted to Government for sanction departmental operations have been proposed. The system, therefore, will be introduced with the plan.

In the Central Circle, departmental fellings were carried out in the Mahableshwar and Matheran hill forests for supply of fuel to the depôts at the two stations, and 280,970 cubic feet and 44,262 cubic feet respectively were extracted. In the East Khandesh and Poona Divisions, unsound and badly shaped trees in the exploited coupes and, in the Poona Division, dead babul trees were extracted departmentally. Mhowra seed weighing 114,824 lbs. in the North and West Khandesh Divisions, Hirda 190 khandies in the Poona Division and 35,128,678 lbs. of grass in the West Khandesh, Satara and Poona Divisions were collected by departmental agency.

In the Southern Circle, the quantity of timber exploited fell from 1,838,754 cubic feet in the previous year to 1,701,754 cubic feet, while that of fuel increased from 4,638,276 cubic feet to 5,838,193 cubic feet. If contractors had not been handicapped by the influenza epidemic, a larger quantity of timber would have been brought to depôts according to contracts given. The above outturn for the year 1918-19 includes the material supplied to the Munitions shown below :—

Teak	..Logs 19,853 cubic feet, poles 888, scantlings 557 cubic feet, battens 138,888 running feet.
Junglewood	.. Logs 76,825 cubic feet, poles 100,730, scantlings 3,152 cubic feet, battens 363 cubic feet.
Fuel	.. 294,609 cubic feet.

Besides, 53,243 bamboos, 5,220 tent pegs and 14 tons 13 maunds tarwad (*cassia auriculata*) bark were supplied.

Saw Mills.

The following details are given by the Conservator regarding the working of the five saw mills in the four Kanara divisions :—

Sambrani Mill No. I.—The outturn is equivalent to about 60,000 sleepers, a good output.

With wages high, the cost of establishment was exceptionally high.

The value of work done on the standard of 3 annas per cubic feet for sawing charges on metre gauge sleepers exceeds the working expenses.

Value of work done.	Rs.	Working expenses.	Rs.	a.	p.
23,778 sleepers at 4½ annas each ..	6,688	Supply of fuel ..	188	13	0
8,699 cubic feet scantlings at 5 annas per cubic feet.	2,719	Medicines ..	108	2	0
		Oil ..	682	14	6
6,542 cubic feet planks at 9 annas per cubic feet.	3,680	Stores from England ..	3,624	0	0
		Price of coir ..	313	10	6
11,632 cubic feet battens at 9 annas per cubic feet.	6,543	Cotton waste ..	266	0	0
		Local stores ..	409	9	2
951 sleepers at 6 annas each ..	326	Huts ..	151	4	0
123 sleepers at 7 annas each ..	54	Establishment ..	14,095	1	5
			19,839	6	7
		Add interest on capital outlay Rs. 15,000 at 5 per cent. ..	750	0	0
Total ..	20,010	Total ..	20,589	6	7

The actual sawing cost per cubic feet is approximately 3.66 annas against the pre-war rate of 1½ annas. At this rate of working the mill pays well. It is improbable that more than half material from which the 23,778 sleepers were cut would have been utilised without the mill, so that the value of half of the sleepers may be credited to the mill, that is a sum of Rs. 41,611 ; to this must be added the value of work done including collection of pieces for the remaining half of the sleepers at Re. 1 per sleeper = Rs. 11,889.

The 26,873 cubic feet of battens, etc., represent at 2½ rupees per cubic foot a further sum of Rs. 67,182 to the mill's credit as contractors would have wasted all this material in hand sawing sleepers in the forests.

As this mill has been working over 20 years and 10 per cent. has been charged to depreciation of machinery, no further depreciation charges should be charged to the mill.

With a sum of Rs. 1,20,682 to its credit on the year's working the charges are Rs. 47,731 giving a profit to Government of Rs. 72,951.

Dandeli Mill No. II.—The outturn of this mill was very poor indeed and, calculating on the same standard as for the Sambrani mill, the small amount of work done could have been carried out by hand-sawing for Rs. 16,000 less.

The cost per cubic feet works out to the very high figure of Rs 1-3-5½.

Much good material was so badly cut that the waste in this mill was twice what it should have been, 52 per cent. against 28 per cent. at Mill No. I.

The loss by bad cutting may be estimated at 5,000 cubic feet of value Rs. 20,000.

The statement below shows a loss of Rs. 18,142 and the total loss on the working of this mill must be close on Rs. 40,000 :—

Value of work done.		Working expenses.	
	Rs.		Rs. a. p.
9,646 cubic feet scantlings at 5 annas per cubic feet.	3,014	Oil ..	724 0 0
1,233 cubic feet planks at 9 annas per cubic feet.	694	Stores from England ..	5,420 0 0
4,515 cubic feet planks at 9 annas per cubic feet.	2,540	Coir ..	35 5 0
991 sleepers at 7 annas each ..	434	Local stores ..	4,280 4 0
57 planks at 9 annas each ..	32	Huts ..	22 0 0
394 battens at 9 annas each ..	223	Establishment ..	10,684 13 7
5,075 scantlings at 5 annas each ..	1,586	Depreciation ..	3,000 0 0
4 santlings at 5 annas each ..	1		24,166 6 7
		Add interest on account of outlay in machinery and buildings at 5 per cent. on Rs. 50,000 ..	2,500 0 0
Total ..	8,524	Total ..	26,666 6 7

In future only jungle woods will be cut at the mill, that is, a class of material which would hardly pay for exploiting in the log for distant markets such as Bombay, Mesopotamia and Egypt.

The pay of the Foreman Rs. 80 was too low to attract the class of men required and in future the pay will be Rs. 200—20—300.

For the five Government saw mills as yet only one Foreman, Mr. Wagle, can be regarded as really efficient and fit to take charge of a mill. This man has been on saw mills in Kanara for many years and his local knowledge and capabilities have enabled him to reap the benefit of the bonus offered on the outturn in the mills, while the others have failed to obtain this.

Kirwatti Mill No. III.—This mill is doing the same class of work as Mill No. I.

Considering the short period the mill has been working, the outturn may be considered satisfactory.

Value of work done.	Rs.	a.	p.	Working expenses.	Rs.
14,746 metre gauge sleepers at 4½ annas per cubic feet.	4,147	0	0	Wages of coolies ..	6,338
4,000 cubic feet scantlings at 5 annas per cubic feet.	1,250	0	0	Accessories ..	2,435
8,424 cubic feet boards and battens at 9 annas per cubic feet.	4,738	8	0	Sundries ..	485
				Interest on capital at 5 per cent. ..	750
				Depreciation of machinery 10 per cent..	1,500
Total ..	10,135	8	0	Total ..	11,508

Reducing the outturn of work to metre gauge sleepers the outturn = about 36,048 sleepers = 54,072 cubic feet.

This gives an average cost per cubic feet of 3·27 annas, so that the work has been more economical than at Mill No. I though the outturn was much less.

As much of the material used would have been lost by fire, etc., in the forest with contractors working on it, the full value of half the sleepers may be credited to the mill.

	Rs.	a.	p.
7,373 sleepers at Rs. 3½ each	25,805	8	0
Add to this the value of work done for the remaining half of the sleepers at Re. 1	7,373	0	0
And the full value of material cut from sleeper waste 12,424 cubic feet at Rs. 2½ per cubic feet	31,060	0	0
Total ..	64,238	8	0
Against this the total expenditure	45,311	0	0
Profit ..	18,927	8	0

The profit to Government from the contractor's mill at Gunjavati may be taken as 9,375 rupees. This is calculated on material cut from waste only 10,000 cubic feet, value Rs. 25,000, of which Government receives three-eighth share.

The mills, one at Ramanguli in Kanara, C. D., and one near Sulgeri in Kanara, W. D., have been working too short a time to give any useful results.

Generally speaking it does not pay to cut good logs of valuable timbers such as teak, and the Government Saw Mills should work exclusively on short end pieces and branch-wood of teak or on less valuable timbers for which it is difficult to find a ready sale in the depôts.

The work turned out by the Government Saw Mills in Kanara, N. D., E. D., C. D. and W. D. was as under :—

Material.	Outturn.					
	1918-19.					1917-18.
	Eastern Division, Kanara.	Central Division, Kanara.	Western Division, Kanara.	Northern Division, Kanara.		Northern Division, Kanara.
				Mill No. I.	Mill No. II.	
Six feet teak sleepers, no	14,746	..	987	23,778	991	14,345
Seven feet teak sleepers, no	..	..	111	951	..	657
Bridge sleepers, no	..	..	....	123	..	....
Teak planks cubic feet	..	..	393	6,542	1,233	2,123
Teak scantlings cubic feet	12,424	..	1,051	8,699	9,646	9,900
Teak battens cubic feet	..	..	929	11,632	4,515	24,140
Jungle-wood scantlings cubic feet ..	..	..	7,527	..	5,079	4,122
Jungle-wood battens cubic feet	..	..	571	..	394	963
Jungle-wood planks cubic feet	..	..	829	..	57	253
Jungle-wood paving blocks, no	..	..	39	..	..	10,854
Teak paving blocks, no	..	..	....	..	..	11,022
Jungle-wood material for bridges cubic feet.	..	..	995	..	..	....
	Rs.		Rs.	Rs.	Rs.	Rs.
Value of outturn estimated	64,238	..	5,114	1,20,682	8,524	1,27,545
Charges for running mills	45,311	..	9,902	47,731	26,666	61,463
Net income estimated	18,927	..	—4,788	72,951	—18,142	66,111

In Sind altogether 47,397 cubic feet of timber and 989,353 cubic feet of fuel were extracted departmentally by improvement felling in the Sadhuja tali plantation in Sukkur, thinnings in Shikarpur, Hyderabad and Karachi and from erosion strips in Larkana.

(*ii*) *Purchasers.*

The amount of major and minor forest produce removed by purchasers and consumers during the year compares as follows:—

Circle.	Year.	Major produce.				Minor produce in value.			
		Timber.		Fuel.					
		Cubic feet (in thousands).	Value.	Cubic feet (in thousands).	Value.	Bamboos.	Grass and grazing.	Other minor produce.	Total.
			Rs.		Rs	Rs.	Rs.	Rs.	Rs.
Northern ..	1918-19 ..	2,058	22,58,031	4,570	27,532	32,393	92,563	43,984	1,68,940
	1917-18 ..	2,189	19,10,740	4,985	22,204	31,950	1,01,360	58,987	1,92,297
Central ..	1918-19 ..	979	4,56,449	2,874	59,157	10,663	3,60,639	45,813	4,17,115
	1917-18 ..	958	4,51,568	2,633	69,189	13,919	3,20,014	47,292	3,81,225
Southern ..	1918-19 ..	855	3,01,702	6,468	1,91,940	41,270	75,830	53,491	1,70,591
	1917-18 ..	1,389	3,04,224	5,683	1,26,832	27,341	62,268	48,165	1,37,774
Sind ..	1918-19 ..	149	1,20,863	19,223	4,59,240	..	40,071	50,649	90,720
	1917-18 ..	270	1,47,106	21,163	4,53,188	..	38,934	31,575	70,509
Total ..	1918-19 ..	4,041	31,37,045	33,835	2,78,629	84,326	5,69,103	1,93,937	8,47,366
	1917-18 ..	4,806	28,13,638	34,464	2,18,225	73,210	5,22,576	1,86,019	7,81,805
Difference ..		—765	+3,23,407	—629	+60,404	+11,116	+46,527	+7,918	+65,561

Major produce.—While the outturn of timber and fuel diminished by 16 per cent. and 2 per cent. the value thereof rose by 11 per cent. and 28 per cent. respectively. The value of wood has thus been rising. As in the case of minor, there is a vast scope for development also in the outturn of major produce. The uses of various woods hitherto left in the forests as useless needs to be demonstrated by setting up pioneer factories and finding markets for the outturn. Receipts from minor produce were Rs. 8,47,366 against Rs. 7,81,805—increase of 8 per cent.—those from major, Rs. 34,15,674 as against Rs. 30,31,863.

The Northern Circle shows a decrease in the quantity of timber as well as fuel removed, but an increase in the value of both as well as in the receipts from bamboos. Revenue from grazing and other minor produce diminished by 9 and 30 per cent. respectively. The total value of major produce was Rs. 22,85,563 against Rs. 19,32,944; of minor produce, Rs. 1,68,940 against Rs. 1,92,297 last year.

In the Central Circle there was a slight rise in the quantity and value of timber removed but a deficit in the value realized from fuel, bamboos and other minor produce. Grazing shows an increase of 12 per cent. The value of major and minor produce was Rs. 5,15,606 and Rs. 4,17,115 against Rs. 5,19,757 and Rs. 3,81,325 respectively last year.

There was an increase under all items of minor produce and fuel in the Southern Circle, with a falling off both in quantity and value of timber removed. The revenue obtained from major produce was Rs. 4,93,642 against Rs. 4,31,056 and from minor produce Rs. 1,70,591 against Rs. 1,37,774 last year.

Sind shows decreases both in quantity and value of major produce due to less erosion area having been sold than in the previous year, while there is an increase of 28 per cent. in the value realized from minor produce. The total realizations from major produce were Rs. 5,80,103 against Rs. 6,00,294 and from minor produce Rs. 90,720 against Rs. 70,509 of last year.

(*iii*) Rights and Privileges and Free grants.

The quantity and value of forest produce removed under this head during the last two years were as follows.

Circle	Agency.	Major produce.												Minor produce in value.							
		Timber.				Fuel.				Total.				Bamboos.		Grass and grazing.		Other.		Total.	
		1918-19.		1917-18.		1918-19.		1917-18.		1918-19.		1917-18.									
		Cubic feet in thousands.	Value.	Cubic feet in thousands.	Value.	Cubic feet in thousands.	Value.	Cubic feet in thousands.	Value.	Cubic feet in thousands.	Value.	Cubic feet in thousands.	Value.	1918-19	1917-18	1918-19	1917-18	1918-19	1917-18	1918-19	1917-18
			Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern	C.*	57	1,71,000	76	2,28,660	8,314	2,35,000	8,782	3,52,000	8,371	4,06,000	8,858	5,80,660	12,000	13,000	3,79,000	3,35,826	1,06,000	1,06,000	4,97,000	4,54,826
	F†	8	5,243	8	3,539	..	..	..	..	8	5,243	8	3,539	90	..	..	237	..	..	90	237
Central	C.	..	..	..	..	981	37,988	517	11,985	981	37,988	517	11,985	..	21	53,019	22,381	2,568	3,060	55,587	25,462
	F.	19	3,582	11	2,548	7	352	26	218	26	3,934	37	2,766	87	97	10,021	..	206	637	10,314	734
Southern	C.	300	72,000	300	72,000	3,042	6,46,353	3,042	6,46,353	3,342	7,18,353	3,342	7,18,353	15,000	15,000	3,00,387	3,00,387	1,80,000	1,80,000	4,95,387	4,95,387
	F.	25	6,271	34	8,906	55	557	29	365	80	6,828	63	9,271	1,027	480	16,124	3,238	755	1,447	17,906	5,165
Sind	C.	..	..	..	..	8	79	19	173	9	79	19	173	..	..	3,221	3,755	..	..	3,221	3,755
	F.	3	639	7	1,086	5	49	4	47	8	688	11	1,133	..	..	10,541	4,973	37	6	10,578	4,979
Total	C.	357	2,43,000	376	3,00,660	12,345	9,19,420	12,360	10,10,511	12,703	11,62,420	12,736	13,11,171	27,000	28,021	7,35,627	6,62,349	2,88,568	2,89,060	10,51,195	9,79,430
	F.	55	15,735	60	16,079	66	958	59	630	127	16,693	119	16,709	1,204	577	36,686	8,448	998	2,090	38,888	11,115

*C.=Concessionists.
†F.=Free-grantees.

Rights.—There are none.

Privileges.—These are enjoyed under codes prescribed for each district. The figures are only estimates which are based on general requirements of the people. Owing to excessive scarcity closed forests were thrown open to grazing in the Panch Mahals and Nasik Divisions of the Northern Circle and the privilege of plucking Anjan leaves for fodder was allowed in the latter division and in the three Khandesh divisions of the Central Circle.

The total estimated value of produce removed during the two years was—

	1918-19.	1917-18.
	Rs.	Rs.
Major produce ..	11,62,420	13,11,171
Minor produce ..	10,51,195	9,79,430
Total ..	22,13,615	22,90,601

Free Grants.—Free grants of timber and bamboos were made to villagers for repairing houses, rebuilding them in the case of destruction by fire and for schools, temples and dharmashalas. Those of fuel and other minor forest produce were made in case of extreme poverty. The value of all grants during the two years was :

	1918-19.	1917-18.
	Rs.	Rs.
Major produce ..	16,693	16,709
Minor produce ..	38,888	11,115
Total ..	55,581	27,824

(*c*) *Outturn and Sources of Forest Produce.*

The total outturn of major forest produce and the value of that of the minor forest produce extracted from the forests by all agencies during the year compare with similar figures of last year as follows :—

Circles.	Major produce.						Minor produce in value. §					
	Timber, cubic feet in thousands.		Fuel, cubic feet in thousands.		Sandal wood in value.		Bamboos.		Grass and grazing		Other.	
	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.	1918-19.	1917-18.
Northern ..	2,440	2,588	13,224	13,906	..	..	61,525	50,518	4,71,967	4,37,423	1,49,984	1,65,101
Central ..	1,019	1,009	4,138	3,535	..	..	10,750	14,037	4,23,686	3,42,407	59,383	80,649
Southern ..	2,882	3,562	15,403	13,392	62,163	56,540	1,26,344	1,23,476	3,92,341	3,66,020	2,37,035	2,37,717
Sind ..	199	308	20,925	21,699	..	..	..	..	53,833	47,662	52,204	36,529
Total ..	6,540	7,467	53,690	52,532	62,163	56,540	1,98,619	1,88,031	13,41,827	11,93,512	4,98,606	5,19,996
Difference ..	−927		+1,158		+5,623		+10,588		+1,48,315		−21,390	

While there is decrease of 927,000 cubic feet in the outturn of timber for the Presidency, that of fuel shows an increase of 1,158,000 cubic feet. The former is shared by the Northern, Southern and Sind Circles and the latter by the Central and Southern Circles. The total value of minor produce extracted was Rs. 20,39,052 against Rs. 19,01,539—an increase of Rs. 1,37,513. Detailed explanation of the variations has been given in the preceding sections 5 (*b*) (*i*), (*ii*) and (*iii*) under the different agencies of exploitation employed.

The total number of cattle for which grazing was provided in Government forests during the two years was as follows :—

	1918-19.	1917-18.
Buffaloes, cows, and bullocks ..	2,289,008	2,208,853
Goats and sheep ..	368,755	370,603
Camels ..	3,777	4,543
Other animals ..	12,613	19,763
Total ..	2,674,153	2,603,762

The expenditure on the management of State Forests during the two years is given below :—

	1918-19.	1917-18.	Difference.
	Rs.	Rs.	Rs.
Northern Circle ..	3,26,916	2,36,567	+90,349
Central Circle ..	1,04,037	1,24,780	—20,743
Southern Circle ..	19,02,406	15,28,276	+3,74,130
Sind Circle ..	53,375	40,460	+12,915
Total ..	23,86,734	19,30,083	+4,56,651

CHAPTER III.

Financial Results.

The following statement compares the revenue and expenditure ot the year with those of the previous year and the averages of the previous quinquennium (1912-13 to 1916-17):—

Circle.	Year.	Revenue.	Expenditure.			Surplus.	Percentage of net revenue to gross revenue.
			A.	B.	Total.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern ..	1918-19 ..	29,54,859	3,52,581	4,99,008	8,61,589	21,03,270	71·2
	1917-18 ..	23,25,836	2,61,628	4,13,168	6,74,796	16,51,040	70·9
	Average ..	16,47,946	2,10,572	3,92,501	6,03,073	10,44,873	63·4
Central ..	1918-19 ..	10,48,454	1,22,571	4,90,842	6,13,413	4,35,041	41·5
	1917-18 ..	10,47,251	1,43,349	4,18,898	5,62,247	4,85,004	46·3
	Average ..	8,31,803	1,29,753	4,10,424	5,40,177	2,91,626	35·0
Southern ..	1918-19 ..	32,35,937	20,32,130	4,92,344	25,24,474	7,11,463	22·6
	1917-18 ..	22,31,441	15,33,833	4,17,043	19,50,876	2,80,565	12·5
	Average ..	20,29,814	7,23,879	3,86,809	11,10,688	9,19,126	45·2
Sind ..	1918-19 ..	7,72,890	53,449	2,07,122	2,60,571	5,12,319	66·3
	1917-18 ..	7,33,051	40,583	1,95,144	2,35,727	4,97,324	67·8
	Average ..	4,40,543	40,029	1,78,756	2,18,785	2,21,758	50·3
General Direction ..	1918-19 ..	9	196	46,365	46,561	—46,552	..
	1917-18 ..	....	502	20,747	21,249	—21,249	..
	Average ..	....	....	....	....	....	..
Total ..	1918-19 ..	80,12,149	25,60,927	17,35,681	42,96,608	37,15,541	46·3
	1917-18 ..	63,37,579	19,79,895	14,65,000	34,44,895	28,92,684	45·6
	Average ..	49,50,106	11,04,233	13,68,490	24,72,723	24,77,383	50·0
Difference between	1918-19 and 1917-18.	+16,74,570	+5,81,032	+2,70,681	+8,51,713	+8,22,857	..

The most marked feature of the year is that the gross revenue rose by nearly 17 lakhs over the figure of the last year and by 30 lakhs over the average of the preceding five years. The surplus too was 8 lakhs more than last year and 12 lakhs more than the average. This is a record due to general rise in the value of forest produce consequent on keen competition amongst timber merchants on account of the growing demand and also, not less, to improved facilities of communications.

The increase over the figure of last year is contributed by the Northern and Southern Circles while that over the average occurs in all the circles except the Southern. The Conservator, Northern Circle, remarks that during the year under report the threatened pre-emption at fixed prices for Munitions depressed prices of timber coupes about 10 per cent. below what they would otherwise have been and that, in the year following the one under report, *i.e.*, in the current year, relief from pre-emption has caused the prices to recover.

Concurrently with the gross and net revenue has the expenditure risen, and this is chiefly owing to cost of communications and buildings which really is a most economical investment. The Southern Circle is mainly responsible for this increase. Over 2½ lakhs is due to the forest railway which cost more than double the original estimate and about 1½ lakhs to improvements in roads and construction of new buildings in Kanara, Northern Division. More expenditure will still be incurred on the railway and on roads. The increase of ten lakhs in

the gross revenue in this circle was partly due to recovery of outstandings from the Munitions for supplies made in the previous year. There is, however, notwithstanding, every likelihood of this increase being maintained.

The following shows the progress that the Department has made financially during the last 10 years :—

Year.	Revenue.	Surplus.	Percentage of net revenue to gross revenue.
	Rs.	Rs.	Rs.
1909-10	36,41,959	15,71,440	43·1
1910-11	37,34,292	16,17,887	43·3
1911-12	41,07,665	17,27,606	42·5
1912-13	45,75,255	21,86,235	47·7
1913-14	49,90,904	25,15,127	50·4
1914-15	46,32,328	21,71,206	46·8
1915-16	47,36,661	22,65,335	47·8
1916-17	58,15,377	32,49,009	55·8
1917-18	63,37,579	28,92,684	45·6
1918-19	80,12,149	37,15,541	46·3

It will be seen that there has been a very steady increase from year to year both under the gross and net profits, notwithstanding the fact that capital expenditure on communications and buildings has greatly risen. It is evident that, as the schemes for these essential works gradually approach completion, the rise will be more and more satisfactory.

The falling off in the surplus in 1917-18 compared to the figures of the preceding and the present years was really only apparent, outstandings against Munitions for that year being credited in this year, as was adumbrated in last year's report. It may be noted at the same time that, even so, outstandings are still very large at the end of this year—a fact that may be put to the credit of the revenue side of the account (see last paragraph of this chapter).

The following is quoted from the report of the Conservator of Forests, Northern Circle, as regards the general rise in timber prices which is interesting :—

> " Prices, notably of teak, continued to rise. At the February sales, at Fort Songhad the best lot of logs (in the round) fetched Rs. 5-8-0 per cubic foot, which is a record. Three other lots fetched nearly Rs. 5 per cubic foot, a figure not previously reached. The depôt average for material brought in this year (roughly 159 tons in total) was only just under Rs. 4 per cubic foot. Timber selected to specifications of the Munitions Board but not required by them, fetched a little over Rs. 4½ per cubic foot. A lot left over from last year's sales (of comparatively poorer quality) fetched nearly Rs. 3 per cubic foot. As this timber is carted some 35 miles from the forest, only the best and the second best can be brought in the log. These prices may justify the carting of a third quality but prices of sawn material are so good that it may be better to convert some of the better timber. Judgment is always required in the case of each log, decision depending on girth, length, form and general quality. Rejected railway sleepers fetched Rs. 2-4-9 a piece (1¼ cubic foot nearly), one better lot fetching Rs. 3.9 per cubic foot. Fortunately the contract with the railway at Rs. 2-4-0 for selected sleepers has just lapsed. Boards fetched Rs. 3½ per cubic foot. Odd sizes and battens each fetched nearly Rs. 2½ per cubic foot. All the above being sawn from third class material or waste, there is little doubt but that better stuff, giving greater length and size, would fetch up to Rs. 6 or 7 per cubic foot. Yet, till the beginning of the season, this department was supplying the Munitions Board and other Government Departments with selected round timber at Rs. 3 per cubic foot and the Conservator had the greatest difficulty in getting this raised to Rs. 3-10-4, failing to get it put to Rs. 4, though why this department should sacrifice its revenue to others, especially (being wholly Provincial) to Imperial Departments, such as Munitions and Ship-building, is not clear and hardly seems business.

Prices of other species varied very much but average rates were as follows :—

Local name.	Scientific name.	Per khandy (of 12½ cubit feet). Rs. a. p.
Tanach ..	*Ougenia dalbergiodes* ..	22 7 2
Sisham ..	*Dalbergia latifolia* ..	21 9 3
Haladwan ..	*Adina cordifolia* ..	18 1 0
Khair ..	*Acacia catechu* ..	17 7 0
Sadada ..	*Terminalia tomentosa* ..	12 15 7
Bio ..	*Pterocarpus Marsupium* ..	11 11 9
Kalam ..	*Stephegyne parviflora* ..	8 7 0
Bondara ..	*Lagerstrgemia microcarpa* ..	8 3 9
Kilai ..	*Albizzia procera* ..	6 12 10
Savar ..	*Bombax malbaricum* ..	6 6 0
Bedo ..	*Terminalia belerica* ..	5 11 3 "

The above shows, particularly, how much profit may be effected through utilization by saw-mills of lots of material now wasted in the forest.

The following is an analysis of the sources of revenue and objects of expenditure of the year :—

	General direction.	Northern Circle.	Central Circle.	Southern Circle.	Sind Circle.	Total. 1918-19.	Total. 1917-18.	Increase or decrease.
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I*a* and II*a*—Timber ..	..	25,97,936	4,62,918	21,25,370	1,34,605	53,20,829	41,67,367	+11,53,462
I*b* and II*b*—Firewood and charcoal ..	..	32,033	78,712	6,94,034	5,06,510	13,11,289	9,68,678	+3,42,611
I*c* and II*c*—Bamboos ..	..	49,435	10,663	1,10,317	..	1,70,415	1,59,423	+10,992
I*d*—Sandal wood ..	..	24	6,060	62,163	..	68,247	56,589	+11,658
II*d*—Grazing and fodder grass ..	..	92,563	3,60,639	75,830	40,071	5,69,103	4,08,889	+1,60,214
I*e* and II*e*—Other produce ..	..	1,20,233	56,609	1,11,694	52,411	3,40,947	3,53,325	−12,378
III—Drift and confiscated forest produce. ..	..	1,689	1,975	158	1,803	5,625	3,323	+2,302
IV—Forest not managed by Government.	..	5,603	7,116	..	..	12,719	10,757	+1,962
V—Miscellaneous ..	9	55,343	63,761	56,371	37,490	2,12,974	2,09,228	+3,746
Total Revenue ..	9	29,54,859	10,48,453	32,35,937	7,72,890	80,12,148	63,37,579	+16,74,569

	General direction.	Northern Circle.	Central Circle.	Southern Circle.	Sind Circle.	Total. 1918-19.	Total. 1917-18.	Increase or decrease.
Expenditure.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Conservancy and Works—								
I.—Timber extracted by Government Agency.	....	1,16,419	20,068	12,96,148	22,810	14,55,445	14,25,099	+30,346
II.—Timber extracted by purchasers.	....	33,587	15,807	8,902	238	58,534	53,595	+4,939
III.—Drift and Confiscated forest produce.	....	29	34	96	74	233	114	+119
IV.—Forest not managed by Government.	....	2	....	....	....	2	....	+2
V.—Rent of leased forests ..	....	23,574	16,000	30	....	39,604	32,873	+6,731
VI.—Stores, Tools and Plant ..	175	8,901	1,164	11,744	1,690	23,674	18,454	+5,220
VII.—Communications and Buildings.	....	1,20,435	29,844	5,89,629	9,090	7,48,998	2,44,738	+5,04,260
VIII.—Organization and Improvement.	....	40,455	27,733	99,692	14,261	1,82,141	1,49,857	+32,284
IX.—Miscellaneous ..	21	9,179	11,921	25,889	5,286	52,296	54,663	−2,367
Total of A.—Conservancy and Works.	196	3,52,581	1,22,571	20,32,130	53,449	25,60,927	19,79,393	+5,81,534
B.—Establishments—								
I.—Salaries ..	34,432	4,32,034	4,33,457	4,29,856	1,70,156	14,99,935	12,30,829	+2,69,106
II.—Travelling Allowances ..	7,221	46,379	42,681	45,343	19,397	1,61,021	1,51,091	+9,930
III.—Contingencies ..	4,712	20,595	14,704	17,145	17,569	74,725	62,332	+12,393
Total of B.—Establishments.	46,365	4,99,008	4,90,842	4,92,344	2,07,122	17,35,681	14,44,252	+2,91,429
Total Expenditure ..	46,561	8,51,589	6,13,413	25,24,474	2,60,571	42,96,608	34,23,645	+8,72,963
Surplus, 1918-19 ..	−46,552	+21,03,270	+4,35,041	+7,11,463	+5,12,319	+37,15,541	....	....
Surplus, 1917-18 ..	−21,249	+16,51,040	+4,85,004	+2,80,565	+4,97,324	....	+28,92,684	....
Difference in surplus ..	−25,303	+4,52,230	−49,963	+4,30,898	+14,995	+8,22,857	....	....

The figures of the year are further analysed as follows :—

REVENUE.

Classes.	Northern Circle.		Central Circle.		Southern Circle.		Sind Circle.		Total.	
	Rs.	P.*	Rs.	P.*	Rs.	P.*	Rs.	P.*	Rs.	P.*
Major produce ..	26,29,969	89·	5,41,630	51·7	28,81,725	89·1	6,41,116	83·	66,94,440	83·5
Minor produce ..	2,69,546	9·1	4,33,971	41·4	2,97,841	9·2	94,284	12·2	10,95,642	13·7
Miscellaneous ..	55,344	1·9	72,853	6·9	56,371	1·7	37,490	4·8	2,22,058	2·8
Total ..	29,54,859	..	10,48,454	..	32,35,937	..	7,72,890	..	80,12,140	..

EXPENDITURE.

Extension and Constitution ..	2,062	·6	2,501	2·	2,246	·1	..	..	6,809	·3
Improvement ..	1,68,008	47·6	82,997	67·7	6,87,075	33·8	30,326	57·	9,68,406	37·8
Exploitation ..	1,82,511	51·8	37,073	30·3	13,42,809	66·1	23,123	43·	15,85,516	61·9
Total A. ..	3,52,581	..	1,22,571	..	20,32,130	..	53,449	..	25,60,731	..
Administration ..	37,503	7·5	57,070	11·6	1,33,083	27·0	61,505	29·	2,89,161	17·1
Executive ..	1,45,792	29·2	2,12,300	43·3	1,69,570	34·4	72,885	36·	6,00,547	35·6
Protective ..	3,15,713	63·3	2,21,472	45·1	1,89,691	38·6	72,732	35·	7,99,608	47·3
Total B. ..	4,99,008	..	4,90,842	..	4,92,344	..	2,07,122	..	16,89,316	..

* P = Percentage.

The outstandings on account of revenue at the commencement and close of the year were :—

	Commencement.	Close.
	Rs.	Rs.
Northern Circle ..	40,796	2,62,083
Central Circle ..	6,889	27,538
Southern Circle ..	11,66,501	10,73,169
Sind Circle ..	79,548	1,28,079
Total ..	12,93,734	14,90,869

The outstandings on account of contractors and disbursers at the beginning and end of the year were as follows :—

	Beginning.	End.
	Rs.	Rs.
Northern Circle ..	29,184	46,266
Central Circle ..	26,268	11,679
Southern Circle ..	3,97,828	5,77,451
Sind Circle ..	8,343	6,351
Total ..	4,61,623	6,41,747

The increase here is mainly due to the influenza epidemic. During the early part of the working season, October, November and December, the contractors could get no work done.

The summary of the year's transactions were as shown below :—

	In favour of the year.	Against the year.
	Rs.	Rs.
Value of timber and other produce at sale depôts—Form No. 22	7,82,918	..
Value of live and dead stock—Form No. 23 ..	1,47,604	..
Cash surplus—Form No. 24	37,15,541	..
Outstandings on account of revenue—Form No. 26 ..	1,97,135	..
Outstandings on account of contractors and disbursers—Form No. 27	1,80,124	..
Total ..	50,23,322	..
Net value of transactions, 1918-19	50,23,322	
Do. 1917-18	44,02,853	
Increase ..	+6,20,469	

CHAPTER IV.

Research and Experiments.

Owing to want of staff and very unfavourable conditions of the year, very little could be done. The following details are reported by the Conservators :—

Northern Circle.

Tarwad (*Cassia auriculata*) propagation was continued. 21·5 tons of seed in 1918 and 9·75 tons in 1919 were collected and distributed to various places within and beyond the Presidency—a most creditable performance. In the circle 1,110 acres in 1918 and 167 acres in 1919 were completely sown with seed and 8,887 acres in 1918 and 4,900 acres in 1919 were partially sown by various methods in the Panch Mahals, Surat, North Nasik and West Nasik Divisions, the other divisions being not suitable to it. The results are reported to be good. 50 per cent. of the seed sown last year lay dormant and germinated this year and 75 per cent. of that sown in 1919 came up plants being 2 to 4 inches high and doing well.

Rosha oil.—A portable steam double still was experimentally erected in North Nasik. The only stuff available was poor and dry which ordinarily would not be used. This was treated and though the percentage of oil was low, the product was of better quality than the best oil by the country process.

Timber conversion.—A portable saw mill lent by the Executive Engineer, Nasik, was worked in Peint, as an experiment. The outturn was not satisfactory, owing to want of expert supervision. The establishment of two or three saw mills in these forests under expert assistance is very desirable for utilizing to the best advantage much inferior, stunted teak and junglewood material now going to waste.

Central Circle.

Tarwad was sown in all the divisions except Kolaba wtih the same results as in the Northern Circle.

Of the *Eucalyptus* plants in North Khandesh mentioned last year, half were killed by white ants but those surviving are doing well. Also the *Grevillea* plants are reported to be growing well.

The work of Sallai (*Boswellia serrata*) tapping was continued in the same division and 3 cwts. of Gum-oleo-resin were supplied to the Institute at Bangalore and 4 cwts. to the Eastern Development Company, Limited, Bombay, for experiment; tapping is still being continued to meet further demand of the company.

The Divi-divi (*Cæsalpinia coriaria*) seedlings transplanted in the preceding year in Kolaba are doing well.

Southern Circle.

Tarwad was also sown in the dry parts of this circle with no good results owing to severe drought.

The experiment of sowing teak after clear felling and burning in the Kanara High forests was promising but with a partial failure due to the same cause.

Samples of fibre from Tali-palm (*Corypha umbraculifera*) leaf stalks forwarded by Mr. M. S. Tuggerse from Mahime forests in Southern Division, Kanara, were sent to the Director of Industries and to Dehra Dun. This fibre has since been reported on by commercial Experts as being full of promise and further enquiries are going on.

Sind Circle.

The Divi-divi plants put out last year in Sukkur are doing well.

The *tarwad* sowing was carried out as last year with partial failure owing to frost to which the plant is very susceptible.

The propagation of lac was continued but no marked results were obtained.

General.

(1) *Woods suitable for rifle stocks.*—The two species *Terminalia tomentosa* and *Pterocarous Marsupium*, which have been pronounced as likely to be suitable for the manufacture of rifle stocks, are both found in sufficiently large quantities in the Northern and Southern Circles and at one time the Indian Munitions Board

had indented for a supply of a hundred tons for the purpose. Seasoning experiments have been undertaken in the Southern Circle and results are still awaited.

(2) *Woods suitable for embossing work.*—At the instance of Messrs. A. Willing and Company, Bombay, the Director of Industries made enquiry about woods suitable for embossing work. The following species which are found in this Presidency have been recommended for trial:—

Adina cordifolia; Stephegyne parvifolia; Chickrassia tabularis; Cedrela Toona; Odina Wodier; Gmelina arborea; Dillenia pentagyna; Holarrhena antidysenterica.

(3) *Woods suitable for brush-making.*—Messrs. H. Bevis & Co. of Cawpore having made enquiries about woods suitable for brush-making, samples of—

Holarrhena antidysenterica,

Carallia integerrima,

Canthium umbellatum.

were supplied. Results are awaited.

(4) *Woods suitable for making "Gur" cases.*—The Director of Industries made enquiry about woods suitable for making "Gur" cases and tea-chests. *Terminalia paniculata* was recommended and approved. Arrangements for cutting up this wood and supplying "Gur" cases have been made in the Kanara Central Division, Southern Circle. This wood occurs in large quantity and of great size in the Kanara forests and is not much in demand for anything else. It hardly pays to bring it in logs to depôt for local demand.

(5) *Woods and nuts suitable for button making.*—Fruits of *Corypha umbraculifera* (vernacular "Tale"; the Umbrella Palm) which is plentiful in Kanara Southern Division, and woods such as *Dalbergia Sissoo, Santalum album* (Sandal), *Memecylon edule,* etc., have been recommended as suitable for the manufacture of buttons in response to a query from Mr. Dyer, Mechanical Engineer to the Government of Bombay.

(6) *Grewia tiliæfolia* which is available in large quantity in Kanara and Belgaum was experimentally supplied, tested and found suitable for aeroplanes but trees yielding sufficiently flawless trunks being very scarce, there was no actual order for it from the Munitions. The same species is recommended to the Director of Industries as suitable for making casks as containers of vegetable oil.

(7) *Cæsalpinia brevifolia,* the pods of which are known to contain 50 per cent. tannin and to have a tannin value superior to Divi-divi (*Cæsalpinia coriaria*) has been recommended for experimental cultivation in dry regions. Seeds supplied by the President, Forest Research Institute, Dehra Dun, have been sent to all the circles for being tested in dry localities. The first available harvest of pods will be sent to the Forest Research Institute, Dehra Dun, for valuation of their tannin-contents and then the feasibility or otherwise of their cultivation on a commercial scale in the successful regions will be considered.

(8) *Tarwad.*—As regards the cultivation of Tarwad experimental sowing made in all the circles in 1918 were not encouraging owing to the failure of rains in the Northern and Southern Circles and to excessive frost in Sind; however, fresh sowings have again been made in 1919 and, judging by the results after normal rains, it will be possible to form a fair idea before the close of the present year regarding the advisability of proceeding with the cultivation on a large scale.

(9) *Lac propagation.*—The system of exploitation through contract agency in Sind having proved defective, as in that no measures were taken to ensure the future crops and to propagate the lac, departmental collection is being tried. Mr. C. M. Harlow of the Indian Forest Service who has been appointed by the Government of India to conduct an enquiry into the lac industry is to visit the lac districts in Sind during the current cold weather. The results of his enquiry will be awaited.

(10) Samples of the following fibre plants have been supplied to the Director of Industries for experimental purposes:—

1. *Sida rhombifolia.*
2. *Sida acutifolia.*
3. *Hibiscus cannabinus*
4. *Thespesia Lampas.*
5. *Thespesia populnea.*
6. *Kydia calycina.*
7. *Bombax malabaricum.*
8. *Sterculia urens.*

9. *Sterculia colorata.*
10. *Sterculia guttata.*
11. *Helicteres isora.*
12. *Friolæna Candollei.*
13. *Grewia tiliæfolia.*
14. *Erinocarus Nimmoanus.*
15. *Crotolaria juncea.*
16. *Spatholobus Roxburghii.*
17. *Butea frondosa.*
18. *Butea superba.*
19. *Bauhinia racemosa.*
20. *Bauhinia Vahlii.*
21. *Bauhinia malabarica.*
22. *Bauhinia variagata.*
23. *Albizzia stipulata.*
24. *Hardiwickia binata.*
25. *Careya arborea.*
26. *Casearia glomerata.*
27. *Calotropis procera.*
28. *Cordia Myxa.*
29. *Ipomœa Turpethum.*
30. *Dolichandrone falcata.*
31. *Aloe.*
32. *Ficus rumphii.*
33. *Trema orientalis.*
34. *Saccharum arundinaceum.*

Results are awaited.

(11) *Bamboo pulp paper industry.*—According to the Press Note forwarded under Government endorsement No. 2338 of 8th March 1918, the Kanara District is reserved for the scope of experiments by a syndicate under the management of Messrs. Turner Morrison & Co. of Bombay as to the possibilities of the manufacture of bamboo paper pulp on a commercial basis for a period of two years.

CHAPTER V.

Administration.

Mr. Bell remained in charge, as Chief Conservator of Forests, throughout the year.

The Northern and Southern Circles have been held by Mr. Fisher and Mr. Copleston, respectively, throughout the year. Mr. Napier held charge of the Central Circle till 1st April 1919, when he proceeded on leave, handing over to Mr. Dodgson.

The charge of the Sind Circle was held by Mr. Thomson up to 3rd November 1918 when he was appointed Controller of Famine Fodder Operations and was relieved by Mr. Aitchison who held it during the remainder of the year.

The changes in the divisional charges were as follows :—

Circle.	Divisions which remained in charge of the same officers throughout the year.	Divisions which changed hands—with number of changes.	
Northern ..	Panch Mahals West Thana.	Surat ..	Two.
	East Thana West Nasik. North Nasik. East Nasik.	North Thana ..	Five.
Central ..	Kolaba	East Khandesh ..	Two.
		West Khandesh ..	Two.
		North Khandesh ..	Two.
		Poona ..	Two.
		Satara ..	Two.
Southern ..	Central Kanara	North Kanara ..	Three.
	Dharwar-Bijapur	East Kanara ..	Two.
	Belgaum.	South Kanara ..	Three.
		West Kanara ..	Two.
Sind ..	Hyderabad	Sukkur ..	Two.
	Larkana. Shikarpur. Karachi.		

In no circle was there a whole-time Working Plans Officer during the year.

Imperial Forest Service.

Of the 26 divisions, 11 were held by Imperial Forest Officers throughout the year. Three partly by Imperial and partly by Provincial and 12 wholly

by Provincial Service Officers. This shows that the already short staff of 21 Imperial Officers (not counting the two at Dehra Dun, one Chief Conservator and 4 in charge of the circles) allotted for divisional charges (including Working Plans) in the Presidency, including Sind, was reduced by 7 during the whole year and 10 during part of the year, while not a single recruit joined.

Provincial Forest Service.

Four out of the 19 sub-divisional charges have been vacant, as a similar number of major charges were held by Provincial Service Officers in addition to the 7 minor divisional ones allotted for them.

Mr. A. C. Robinson, Extra Deputy Conservator, retired on 31st March 1919.

Mr. Jagan Nath Dutt on completion of his course at Dehra Dun in April 1919 was posted to the Central Circle.

Executive Forest Service.

Here the want of recruits must continue until we have our own College for training men as neither Dehra Dun nor Coimbatore can take the number we want. About 12 vacancies in the sanctioned cadre have had to be held over, there being no suitable men even amongst Foresters to fill them.

Nine trained rangers were recruited from Dehra Dun in April 1919, twelve are expected in April 1920 and ten have been undergoing the first year's course at Dehra Dun and five at Coimbatore.

Protective Forest Service.

Proposals for increase of the cadre and the pay of this as well as the executive service are now before Government. The training of Guards will be commenced when the local College comes into being which is expected shortly—it has been expected for a long time.

Clerical Service.

Recruitment for junior clerks has become hopeless and that of senior clerks is nearly as bad. Proposals for the improvement of pay of this service have also been submitted to Government.

Menial Service.

The remarks about junior clerks apply equally here. This service has also been included in the general scheme for re-organization. Needless to say, the sooner the schemes are sanctioned and put into effect the better it will be for development. At present work is suffering in every branch.

The casualties during the year were as follows:—

Casualties.	Northern Circle.	Central Circle.	Southern Circle.	Sind Circle.	Total.	
					1918-19.	1917-18.
1. Retirements ..	15	14	5	6	38	42
2. Resignations ..	18	20	28	43	109	148
3. Deaths ..	87	64	63	39	253	64
4. Prosecutions ..	2	3	..	..	5	10
5. Degradations ..	7	..	15	14	36	54
6. Dismissals, removals or supersessions.	22	35	27	39	123	97

The very heavy death rate is due to influenza.

Of the two cases of defalcation in the Northern Circle referred to last year, one resulted in the conviction of the junior clerk who was sentenced to two years' rigorous imprisonment and a fine of Rs. 400; the accused guard, who had absconded in the other case, has been traced to Portuguese territory but has not been apprehended.

In the Central Circle, a trained Ranger (C. A. J. Lobo), being prosecuted for misappropriation of Government money by fraudulent disposal of fuel felled departmentally, was convicted and sentenced to one day's rigorous imprisonment and to pay a fine of Rs. 1,000. Two depôt officers in North Khandesh were convicted of extortion and criminal misappropriation of Government money. One was sentenced to one year's rigorous imprisonment and a fine of Rs. 25 and the other to one day's simple imprisonment and a fine of Rs. 300 or, in default, to one month's simple imprisonment. A third depôt officer at Mahableshwar has been under trial for criminal breach of trust.

The two cases of guards in the Southern Circle which were pending last year were acquitted. A case against a guard for hushing up a police case is pending.

Three cases of theft of Government cash from officers occurred in the Northern Circle, one involving murder as a preliminary. The murderer was caught and the thieves were apprehended in one of the other two cases.

All the divisional forest offices, with the exception of two, were examined by the Conservators who report that no serious irregularities were noticed.

The relations between district and forest officers were, throughout, almost uniformly satisfactory and the Chief Conservator acknowledges the assistance which the former have invariably given; and would like to place on record, although it is no business of his to criticise the actions of the local representatives of Government, his appreciation of the comprehension of the difficulties of the department and helpful activities of the able Commissioner, Southern Division, Mr. Mountford. It was greatly due to his even judgment and encouragement that the department was enabled to successfully get through with work which might otherwise have proved to be too much for it during a period of unusual strain in the Southern Circle.

The Chief Conservator must thank all Conservators for the whole-hearted manner in which they have worked. He also wishes to record his acknowledgment of the zeal and energy with which the Divisional Officers and their staffs have unsparingly discharged their unusually heavy duties in a year of exceptionally trying circumstances.

The officers of whom special mention is made by Conservators, omitting the upper controlling staff, are:—

EXTRA ASSISTANT CONSERVATORS.

Northern Circle.—Messrs. Kotwal, Bhalerao, Divekar, Bijoor (retired) for very good work on Famine Grass Operations.

Central Circle.—Mr. R. A. Shirali for similar work.

Southern Circle.—The Conservator makes no mention of anybody in the report but he elsewhere has expressed his appreciation of the good work done by Mr. R. A. Hemmadi who, as usual, has put in a full year's active endeavour.

Mr. S. S. Chandawarkar, Personal Assistant to the Chief Conservator, has been unremitting in his efforts in the office and has accomplished much. Government will lose one of the best men in the provincial service when he retires shortly.

RANGERS.

Northern Circle.—Mr. Ganpat Zaoor for good work on Famine Grass Operations.

Central Circle.—Mr. Pathak for similar work and Mr. Gupchup for persevering with plantation work.

Sind Circle.—Mr. G. J. Ramchandani for good sylvicultural work.

The clerks whose services were lent to the Munitions and Military Departments from the Southern Circle continued in the same departments.

Mr. N. S. Mavinkurve, camp clerk to the Chief Conservator, has acquitted himself extremely well too; he has a very thorough knowledge of his work.

Mr. R. K. Joshi, clerk in the Chief Conservator's office, was specially deputed as Head Clerk under the Controller of Famine Fodder, Bombay, and his services have been highly commended by that officer.

Mr. D. V. Koppikar, the third clerk, is reported by Mr. Chandawarkar as able, hardworking and conscientious.

Land Revenue Administration.

In the Central Circle, the Akrani Forest Mahal was managed by the Divisional Forest Officer, North Khandesh, with the Akrani Ranger as ex-officio Mahalkari. The Conservator reports as follows :—

"Owing to adverse conditions the people of the Akrani passed through a very trying season.

"There was a steady rise in the area cultivated but owing to the complete failure of the monsoon the crops were an absolute failure. There was practically no Mhowra (Bassia latifolia) seed, the collection of which usually provides the people with work and money. Later in the season came the influenza epidemic which carried off many of the population, those surviving being left in a weak, exhausted and dispirited state. To alleviate the people's condition two cheap grain shops were opened—one by Mr. Ginwalla, the Abkari contractor and one by Mr. Rowland of the Mundalwad Mission; and road works were started by Government. Gratuitous relief to deserving infirm and destitute numbering 249, *i.e.*, 21 per thousand of the population was freely given and Tagai in the shape of grain and money to enable cultivation to be again taken up was distributed.

"The progress made by the Akrani primary schools was not all that could be wished. The Masters are apparently sent there as a punishment and then only stay there for one year. No advance worthy of the name will ever be made under such conditions.

"The Mission School at Mundalwad is doing well and in addition to Marathi the children are being taught to read Bhili in Roman characters. The Bhili primers were brought out by the Revd. Franklin who is now on leave.

"Now that the war is over it is hoped that funds may be made available at an early date to build a dispensary at Dhadgaon and appoint two Assistant Surgeons, as the need is great, both in the interests of the fairly large official population and of the people.

In-forest Settlements.

"The in-forest settlements in the North Khandesh division continue to flourish and now number 24 with 442 khatedars.

"It may be taken as a sign of their contentment that in the Adgaon settlement a school was opened by the settlers themselves to accommodate the children of Adgaon, Ganor and Khasgaon settlers. This is a step forward which will be watched with much interest.

"In the East Khandesh division the condition of the settlements is not as satisfactory as in the North Khandesh division but under the sympathetic supervision of Mr. Hiley it is hoped they will improve. One new settlement has recently been started and given a favourable monsoon the prospects for improving the condition of the settlers are quite rosy.

"The department is quite alive to the fact that the welfare and improvement of these hill tracts depend almost entirely on having a local and contented population and every endeavour is being made to better the condition of these settlers."

In the Southern Circle, the four forest Mahals (Dandeli, Virnoli, Kulgi and Devikop) in North Kanara, three (Bilki, Kirwatti and Kargod) in East Kanara, one (Supa) in West Kanara and two (Belgaum and Khanapur West) in Belgaum, were administered by the respective Divisional Forest Officers, with the Rangers as ex-officio Mahalkaris except in Supa where a revenue officer held that office subject to the Divisional Forest Officer as regards land revenue administration. Here, also, the administration everywhere has been very satisfactory and has been cordially acknowledged by the Collector.

CHAPTER VI.

General.

The most notable feature of the year was that, while the cessation of the war relieved the department of war-work, the famine fodder operations strained its energies in the most trying conditions created by the influenza epidemic. The scarcity of fodder was caused by the failure of the monsoon rains of 1918. It was felt most severely in the Ahmednagar district and adjoining tracts, the Sirur and Khed talukas of the Poona district, the Koregaon taluka of the Satara district and in the Eastern Mahals of North Gujarat; while it affected to a greater or less extent most districts of Gujarat and the Deccan, the worst parts being the Ahmedabad and Kaira districts, parts of Panch Mahals and Broach, the Kathiawar and Rewa Kantha Agencies, the West Khandesh, Poona, Satara, Sholapur and Belgaum districts. Fodder operations were undertaken on a more extensive scale than in previous famines in the Northern and Central Circles and to some extent in the Southern. Mr. Thomson, who held charge of Sind, was deputed to control these operations. A detailed report covering them will be submitted by him. Briefly, the following quantity of grass was cut and baled by the Forest Department:—

For distribution.

		Pounds.
1.	Steam pressed from West Khandesh	28,482,250
2.	Hydraulic pressed from West Khandesh	1,517,930
3.	Hand pressed (North Thana section and Surat Division, B.B. & C.I. Railway)	11,633,054
4.	Hand pressed (East Thana section, G. I. P. Railway) ..	8,741,305
5.	Hand pressed (West Thana section, G. I. P. Railway) ..	3,014,456
6.	Hand pressed (Belgaum Division)	10,850,000
	Total ..	64,238,995

For local consumption.

7.	Poona and Satara Divisions	2,650,000
8.	Nasik and Panch Mahals Divisions	3,657,916
	Total ..	6,307,916
	Grand total ..	70,546,911

Of the quantity collected in the Belgaum division some is reported to have been destroyed by the rain in June as the order for grass was received there very late; the work of despatch was consequenly commenced late and moreover sufficient waggons were not supplied by the railway in time.

The whole quantity mentioned under items 1 to 6 excepting that damaged by rain in Belgaum was distributed to the affected districts and that mentioned under 7 and 8 was disposed of locally.

Besides, considerable closed areas were thrown open in all the circles to cutting and removal of grass by the people themselves. The Conservator, Southern Circle, states that in this way 4,000,000 lbs. of grass were removed from the Eastern Division, Kanara, to Hubli and other parts of Dharwar where fodder was scarce.

Epidemics.—Both the forest staff and the forest workmen suffered severely from the influenza epidemic and the season was a most trying one for the department as well as its contractors. In the Southern Circle, the latter are reported to have lost a number of valuable buffaloes through shortage of rice-straw and kulti; therewere 11 deaths among 'mahouts' and, as a result, several of the contractors' elephants had to remain idle for want of drivers.

Criminal Tribes Settlements.—The criminal tribes settlement of Berads established at Khanapur in the Belgaum division, Southern Circle, under Government Resolution No. 7784 of 30th November 1916, consisting of nearly 450 individuals has been very useful to the department. It is hoped that another, as sanctioned in Government Resolution No. 8203 of 27th September 1919, will be

soon started at Dandeli, the terminus of the Alnavar-Dandeli forest railway. The Khanapur settlement is increasing in numbers and promises to become a considerable success after a very dubious beginning some years ago.

Supply of Labour Corps.—A Labour Corps was employed in the Khanapur forest coupes; not only did it suffer much from sickness but it did not remain long enough to do any useful work. Also another Labour Corps was sent to Bommanalli in Kanara, Northern Division; it had scarcely settled down when it was ordered back for military work.

Kumri Assignment.—In the Supa Mahal, W. D. Kanara, the five-year Kumri allotments being exhausted, the Divisional Forest Officer instead of allotting fresh areas gave out odd pieces of forests adjacent to rice fields both with the object of improving the surrounding conditions of the fields and to provide additional Kumri areas. In 34 hamlets these strips of forests were given out on temporary leases free of assessment on condition that the regular kumri assignment should be given a rest for five years. It is reported that these temporary assignments resulted in a certain amount of waste rice lands being again taken up for cultivation. It is possible that this may continue and that further areas may be cultivated but it is extremely doubtful. Under the recent change of working plans ' system, there will be much ' kumri ' work to be done in the high-forest teak areas of Kanara and efforts should be made to induce the people addicted to this, at present, wasteful method of raising grain, to emigrate temporarily at least every year; to those places where their energies would find a useful and remunerative outlet. The labour is badly wanted there; the want of it is the only difficulty in the way of successful regeneration after clear cutting which depends upon ' taungya ' methods.

Extracts from the remarks of the Collectors on the different divisional reports are given below:—

Kanara, N. D.—(Mr. A. L. Emanuel, *Collector of Dharwar*):—" The report reads as a very interesting one and a record of useful energy. From a revenue point of view the work of the Forest Department in road-making alone is most valuable.

" The lack of population is the ever recurring trouble in the Mallad. The building of railways like that of Dandeli, especially when open to passenger traffic should help to bring population. "

Kanara, S. D.—(Mr. J. H. E. Tupper):—" The Southern Division, Kanara, has long been labouring under severe administrative disabilities and is fortunate at length in finding itself in the capable hands of Mr. Sothers.

" The main features of the year, from the point of view of general administration during semi-famine conditions, were the extensive grant of Tali-palms at a rate reduced from Rs. 4 to Re. 1 per tree; the more liberal grant of fencing material; the progress made under the Firka committees in the giving out of Kumki strip round cultivation; and the commencement of Taungya plantations.

" It is not explained why there have been no recommendation for free-grazing in this division. Close association of rewards with punishments is the policy approved by Government. "

Kanara, W. D.—(Mr. J. H. E. Tupper):—" There was a large increase of fires, due to the quantity of dead bamboo and also to incendiarism. Increase in the latter is probably due to the greater need than usual for an early crop of grass. It is satisfactory to note that other offences decreased and that the District Magistrate's scrutiny of forest cases has stopped the award of inadequate punishments by the subordinate magistracy.

" Mr. Marjoribanks' Kumri policy has the Collector's strong support. This policy of allowing strips round rice land to be kumried combined with the giving out of land for cultivation (to be disafforested later) where it protects and rounds off existing strips of arable, has resulted in a considerable area of waste rice land being taken up again for cultivation. This, as the Collector observed in commenting on last year's report, is at present a far promising way of increasing cultivation, than the uphill attempt at in-forest settlement which receives further condemnation in paragraph 130 of the report.

"Mr. Marjoribanks is to be congratulated on his revenue administration."

Belgaum.—(Mr. G. L. MacGregor, Collector of Belgaum) :—"It is difficult for the Collector, who has not seen these forests to comment on their administration, but it is quite clear that Mr. Hodgson has got through an immense amount of work during the past year and under extremely difficult conditions.

"Considering the circumstances of the year the small rise in the number of fires and increase in the area burnt are not unsatisfactory when compared with the previous year but do not show well against the three year average. It is hoped that with the substantial increase in grazing fees that the Collector has sanctioned for the coming year an improvement will be visible in 1919-20. The conditions of the past year were quite abnormal. Mr. Hodgson thinks the results are bad but with his experience of the Dangs he has set himself a very high ideal. I do not consider the progress made towards that ideal at all unsatisfactory. Measures are gradually being stiffened up for bringing home to the cultivator that in return for the privileges given to him he has certain very definite duties to perform and prohibitions to respect and he is gradually assimilating this teaching. But the process must be gradual; it is essential that the people should not come to look upon the Forest Department as an oppressor. That the people have been treated with consideration is clear from the small number of cases which were taken to Court. It is satisfactory to note that all cases taken into Court in the Khanapur Range, the most important area from a forest point of view, resulted in conviction. The figures in the other ranges are not sufficiently large to form the basis of any conclusion. The Gujnal range where the pressure of population is heaviest naturally shows the largest number of offences. I must confess to being a little doubtful of the wisdom of wide-spread prosecution under Section 78 (2) of the Act for failure to extinguish fires. It seems to me that the raising of grazing fees is a much more satisfactory method. Grazing fees can be raised to a rupee per head of cattle, which would amount to a tidy sum per individual cultivator. It is absolutely essential to enlist the co-operation of the people and the suggestion that punitive guards should be established does not commend itself to me except as a last resort, when the maximum grazing fees that can legally be imposed, have been imposed and found inadequate. I cannot imagine a measure more calculated to cause ill-feeling and friction than the imposition of punitive force of guards.

"Mr. Hodgson has complained about the inadequate sentences imposed in the cases of successful prosecutions. I entirely agree; I am issuing a circular to the Magistrates to incorporate imprisonment in the punishments they award."

Dharwar-Bijapur Division.—(Mr. A. E. L. Emanuel, Collector of Dharwar) :—"On the whole the administration has had creditable results considering the bad season, and the difficulty in finding staff and labour.

"The shortage of quarters for guards appears to the Collector a very serious matter. He can think of hardly anything better calculated to make the Department detested than billeting its guards on the villagers".

Collector of Bijapur (Mr. J. K. N. Kabraji) :—"The transfer of the pasture forests of villages which contain forest proper, to the Forest Department for management has been made as the village panchayats did not look after them at all. The transfer of similar pasture forests in Badami taluka awaits the provision of grazing for sheep and goats, regarding which detailed proposals have now been made to the Conservator of Forests and await his sanction. These proposals should lead to a large reduction in forest trespasses by sheep and goats.

"The improvement of grazing in forests is a pressing want in this district. Where the Forest Department is unable to remove the prickly-pear, it may be worth while to enlist the help of villagers by allowing grazing free for a term of years.

"As the undersigned is leaving the district, he would like to place on record the great service done by Mr. Koppikar in improving the relations between the Forest Department and the villagers without any unnecessary sacrifice of revenue. The result should be no less beneficial to the forests themselves."

The Chief Conservator visited all the circles in the Presidency proper. In the Central Circle he inspected the Satpura forests of the East Khandesh division.

Forest communications are badly wanted in these tracts to exploit their resources to fuller advantage. The fact was brought to the notice of Government and they have approved the proposal to appoint a Forest Engineer to improve matters in this respect. In the Northern Circle, he visited the Dangs forests of the Surat division. Here also good forest roads are wanted to improve the revenue of the valuable forests. The question of appointment of a Forest Engineer to this circle also has received Government approval and it is expected that one will be appointed as soon as a suitable officer is found. In the Southern Circle, greater progress has been made in this respect than previously since the appointment of the Executive Engineer on special duty. Construction and improvement of communications and inforest settlements to remove labour difficulties are today one of the first considerations of the department everywhere.

The Board of Forestry met at Dehra Dun during the year and the Chief Conservator was deputed to attend the meeting where various important subjects of general interest were discussed. A report has been submitted to Government.

The remarks of the Commissioners on the circle reports are as follows :—

Northern Circle.—Commissioner, N. D. (Mr. J. Ghosal) :—"2. The year was abnormal. Many of the activities proper had to be abandoned in favour of special measures. Thus unfortunately there was a great fall off in the demarcation work and in the preparation of working plans. Instead, the Department had to devote its time and energies to the collection and distribution of fodder, to exploiting timber for supply to the Munitions Department and to the collection and distribution of tarwad seed. It is for consideration whether special endeavours should not be made now to clear off the arrears specially in the preparation of working plans.

"3. In last year's report the heavy impounding of cattle in the Panch Mahals was commented upon. This year in spite of special concessions as to free grazing even in closed areas, there is a further increase in impoundings. Some special measures are apparently necessary in this District. Similarly in Nasik the closed forests were opened to free grazing, yet there was a marked increase in impoundings in West Nasik.

"4. The Conservator has urged the necessity of an expert staff for plant in connection with timber conversion. The Commissioner is not aware whether the principle of such conversion of timber into sleepers, paving blocks, etc., by the Forest Department except where this be compulsory for easier transportation, is recognized by Government. Such work might result in competition with private enterprise. If however this be recognized, then the need for an expert staff can hardly be denied.

"5. Mr. Fisher's argument that for materials supplied to other departments or individuals there must be book adjustment at full value deserves serious consideration.

"6. The noticeable feature in this report is a nearly 33 per cent. increase in the net income in spite of a depression of about 10 per cent. in the prices of timber coupes on account of the threatened pre-emption at fixed prices for munitions. This increase may be abnormal but might be maintained to a great extent if the forests be more opened up. Recently a special grant has been made for roads in the Dangs. The Commissioner however is of opinion that substantial budget provision should be made annually under this head for the whole Presidency.

"7. The Commissioner must record his appreciation of the excellent work done by the Forest Department in a most trying year of high prices and scarcity with a staff depleted at one time to about half, due to the Influenza epidemic. The relation between the Revenue and Forest Departments continued to be most amicable. Mr. Fisher has pressed the question of more revenue administration by Forest Officers in forest lands. This has already been reported upon by the Commissioner in No. F. O. R.-108, dated 2nd July 1919."

Commissioner, C. D. (Mr. L. J. Mountford) :—

"1. *Forest Area.*—In the West Khandesh District 15,348 acres of waste land were afforested and 18,642 acres of forest in charge of the Revenue Department in the Sholapur, Satara, Poona and Ahmednagar Districts given out for cultivation.

" 2. *Demarcation.*—In addition to repairs to existing boundaries 13 miles of new boundaries were demarcated at a cost of Rs. 345 : only 3 miles remain to be demarcated.

" 3. *Working Plans.*—None were prepared. The Commissioner endorses the remarks of the Conservator, Central Circle, regarding the necessity of the appointment of a whole-time Working Plan Officer, especially for the examination and commencement of systematic operations in the unorganized areas of the Navapur and Nandurbar forests of West Khandesh.

" 4. *Communications.*—No new road was constructed except the Dhadgaon-Mandwi section of the Dhadgaon-Shahada road, which was taken up by the Forest Department as a famine work.

" The remarks of the Conservator, Central Circle, about the necessity of opening up the extensive forests in Khandesh Divisions deserve consideration, if the produce would justify an extensive outlay. In this connection reference is invited to Mr. Napier's remarks in the last report quoted in paragraph 5 of this office review.

" 5. *Forest Offences.*—A statement showing the number and nature of forest offences in the Central Division areas of the Central Circle is enclosed. Figures for the areas in Northern Circle have not been given by the Conservator, as he says they are shown in form 13 (not received in this office) and were misleading. The total number of offences increased by 15 per cent., the increase occurring mostly under ' fellings '. In spite of the adverse character of the season the number of grazing offences increased by less than a hundred—a fact mainly due to the extensive opening of forests for free grazing.

" In consideration of the figures from Northern Circle since received, and embodied in the statement, the increase of offences under fellings comes to 11 per cent., whereas there is a decrease in the total number of grazing offences, which adds still greater force to the conclusion previously drawn.

" 6. *Fires.*—As regards fires, the figures both of numbers of fires and areas burnt show very satisfactory decreases. The Conservator, Central Circle, rightly remarks that the figures of the area burnt by forest fires show very forcibly what the people can do in the way of protection when they wish. It would seem that in the East Khandesh Division fire tracing operations require greater care and stricter supervision.

" 7. *Cattle Impoundings.*—The number of cattle impounded rose from 83,102 to 88,018 as shown below. This rise is to be expected in a famine year. It is particularly noticeable in East Khandesh and North Khandesh, but as there is a big decrease in West Khandesh the Commissioner has asked the Conservator to report on this and whether all possible areas were thrown open to grazing in East and North Khandesh.

Forest Division.		1917-18.	1918-19.
Central Circle ..	East Khandesh ..	12,434	20,472
	West Khandesh ..	18,278	13,538
	North Khandesh ..	7,021	14,440
	Poona ..	8,357	10,778
	Satara ..	9,230	5,996
Northern Circle ..	West Nasik ..	4,186	6,634
	North Nasik ..	9,341	7,807
	East Nasik ..	14,255	8,353
		83,102	88,018

" There was an increase in four Divisions and decrease in the remaining four.

" It appears from a report of the Conservator, Central Circle, since received, that though more of the closed areas in East and North Khandesh were thrown open for grazing as in the West, the decrease in the number of impoundings in the latter was apparently due to the fact that most of the outside cattle were taken for grazing into the forests of North and East Khandesh and not into the forest of West Khandesh.

" 8. *General.*—The financial results were satisfactory in spite of a bad year. The receipts show only a slight increase over those of the preceding year but are 22 per cent. over the average of the preceding five years.

"Extra demand for grass and grazing largely contributed to this result. On noticing in the Northern Circle report that there was a considerable fall in the price of fuel though there was rise in that of timber and that purchasers' prices rose while Government prices fell, I wrote to the Conservator for an explanation of these apparent anomalies. His report (copy appended) does not explain the differences.

"9. The Department rendered really great service by the provision of grass and grazing in a year of exceptional fodder scarcity and has saved the lives of thousands of cattle. The amount of assistance rendered, the quantity of fodder supplied, cost, etc., will presumably form the subject of a separate famine fodder report and therefore I reserve my detailed remarks in this matter.

"10. In paragraph 5 of Government Resolution No. 7266, dated 17th July last, Government have asked for my remarks on the Revenue Administration of tracts given in charge of Forest Officers. Such areas exist at present in this Division in East and West Khandesh Districts alone, which are well managed. The Conservator, Central Circle's report shows that the Akrani Pargana received a good deal of sympathetic treatment during the famine and that the 'In-forest Settlements' continued to flourish. On receipt of the Government Resolution I made a reference to the Collector of Nasik as regards the advisability of extending the arrangement to the Peint Taluka and his report and my remarks thereon were recently submitted to Government under my No. 2668-141-B., dated 6th November 1919.

"*Number of Forest offences committed in the Central Division during 1918-19.*

District.	A Cases taken into Court.				B Cases compounded and warned.				C Cases undetected.				Total.				Grand total, 1918-1919.
	Injury to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	Injury to forest by fire.	Unauthorized felling.	Grazing without permission.	Other offences.	
East Khandesh ..	3	12	9	8	19	423	494	208	12	104	1	4	34	539	504	220	1,297
West Khandesh ..	7	15	3	1	19	882	357	77	5	5	9	2	31	902	369	80	1,382
North Khandesh ..	..	16	4	2	22	342	289	185	13	52	3	3	35	410	296	190	931
Poona ..	2	24	11	2	17	612	917	170	33	105	12	1	52	741	940	173	1,906
Satara ..	7	18	11	6	6	398	633	190	35	27	..	3	48	443	644	199	1,334
West Nasik ..	..	1	..	..	6	129	155	48	19	12	..	..	25	142	155	48	370
North Nasik ..	..	12	1	..	1	310	166	19	..	22	..	1	1	344	167	20	532
East Nasik ..	..	21	5	2	..	586	312	10	..	33	1	..	..	640	318	12	970
	19	119	44	21	90	3,682	3,323	907	117	360	26	14	226	4,161	3,393	942	8,722
Previous years for the Central Division Districts of Central Circle only ..	6	60	77	37	115	1,924	2,553	557	177	420	17	13	298	2,404	2,647	607	5,956

"

Central Circle.—Commissioner, S. D. (Mr. B. A. Brendon):—"So far as the administration of the forests in the Kolaba District is concerned, the increase in the area damaged by fire is the sole point which attracts attention. The damage is attributed to carelessness on the part of katkaris wandering in search of tubers and wild fruit and it is explained that katkaris resorted to this form of livelihood in consequence of the debilitating effects of influenza, malaria and cholera, although they were permitted to cut grass in open and closed forest (except recently exploited compartments) and to remove the grass for sale and although fuel and timber-cutting in forests was available for them. In this respect the experience of Kolaba offers a curious contrast to that of North and West Khandesh, where the high price of grass induced the people not only to avail themselves freely of the privilege of cutting and removing forest grass but to respect it, with the result that forest fires were fewer and caused less damage than in previous years."

Southern Circle.—Commissioner, S. D. (Mr. L. J. Mountford) :—" The Forest Department has had a very difficult task in the year. Influenza impeded work and in some cases brought it to a standstill ; for example elephant work was entirely stopped at one time as only one mahout was left : the casualties among the staff were 63 against 14 of the previous year ; while scarcity of grain and fodder destroyed the efficiency of both man and beast. The extreme dryness of the year facilitated fires in the parched forests and the area burnt was extensive. The Forest Department, however, although seriously hampered, is able to show a most successful year, although the rise in the price of timber is balanced by the rise in wages. The gross results are Rs. 32,35,937 against Rs. 22,31,441 last year and an average of Rs. 20,29,814 of the previous five years. It is true that the gross results are swelled by 10 lakhs paid up from Munitions, but the previous year's total was also increased by outstandings and in the year under report influenza has caused heavy outstandings from the contractors for logging work.

" The year is also a year of progress, 2½ lakhs being spent on the Railway and 1½ on roads. Many new roads have been surveyed and several built. Old roads have been thoroughly repaired, causeways and culverts erected, works of construction have been carried out and in several divisions areas under lantana were cleared. The Alnawar-Dandeli line has been surveyed nearly up to Bhagwati.

" Without trained subordinates and without Assistant Conservators, the Divisional Forest Officers in N. D. Kanara, W. D. Kanara and E. D. Kanara especially, find it difficult to supervise road construction work. Skilled labour is difficult to obtain in these unhealthy Forests and until the supervising staff is strengthened by the arrival of recruits, the programme for the development of roads must be curtailed.

" 2. The Saw Mills have not on the whole proved satisfactory. Those at Sulgeri and Ramangulli were delayed in erection. The Forest Officers were all working at high pressure, and the very heavy delay to which the Commissioner drew the Conservator's attention more than once must therefore be condoned. It is disappointing that Dandeli, where Forest Officers spent a good deal of their time, showed such miserable results and the Commissioner will enquire into this. It was expected that the Dandeli Mill at the rail head would show especially good results, especially as there are two frame saws at work there.

" 3 Working Plans are in arrears as there was no officer to spare for this work. Revision of Working Plans is also in arrears. There is no doubt that our system of preparing Working Plans is obsolete and far more detailed enumeration is required if data of any practical accuracy are to be secured.

" 4. *Grazing.*—Impoundings have increased as is to be expected in a fodder famine. It is noticed that the area under grazing has been curtailed. It is true that it has been more regularised by Forest Settlements, but the grazing grounds allotted are often unproductive of grass and require considerable improvement before any use can be made of them. Mr. Copleston has taken up this question and the Commissioner had asked that grazing lands should be cleared of trees that prevent the growth of grass. The area under grazing for the five years ending 1913-14 was 4,159 square miles against at present 3,459 square miles and the Collector of Bijapur considers that the improvement of grazing is one of the pressing wants of the district. This will be investigated. The Forest Department gave great assistance, somewhat minimised by the small number of railway trucks available, in providing 1,08,50,000 lbs. of grass for the cattle of the Division. Grass was sent as far as Satara. Forty lakhs lbs. were removed from the E. D. by the ryots for fodder.

" 5. *Kumri.*—In the Supa Mahal Mr. Marjoribanks found that the kumri assignments were overworked and were badly in need of rest. The kumriwallas also needed relief. Mr. Marjoribanks accordingly gave out temporary assignments on temporary leases and free of assessment in 34 hamlets on condition that the regular assignments were given a rest for five years. The Collector has been asked to guard against denudation by giving the kumriwallas lands at the bottom of slopes.

" It is satisfactory to note that the policy of increasing rewards rather than punishments has resulted in rewards of free grazing rising from 205 in 1916-17 to

404 in 1917-18 and to 504 in 1918-19. I consider rewards of far greater importance than punishments. If a village fires a forest it deserves punishment; but to punish a village for fires started by some one unknown, possibly a passing wayfarer, because the villagers 'did not help to put out the fire' only arouses irritation and possibly retaliation. The population is so sparse and so scattered in a few huts all over the forest that the people cannot be summoned nor can they usually come up in time to be of much help. One Divisional Forest Officer tells me he found three successive fires started alongside the road by some one who just kept ahead of him. So long as fires mean an early crop of green grass, they are inevitable. To keep fires under control, a large staff and more fire lines, a very expensive item, are most required.

"7. *General.*—The spread of lantana is serious. Wherever the trees are cleared this impenetrable growth springs up. The cost of eradication in Madras varied from Rs. 2-8-0 to Rs. 56 per acre. It is a very prolific cause of fires as it burns even when green and it is impossible to beat out a lantana fire, once it has started. It harbours pigs, panthers and even elephants. In Coorg large areas were cleared by contract and it would appear that the best method is to burn it, where this can be safely done, and then to uproot it. Burning also destroys the seeds lying dormant in the ground. The Conservator, S. C., is giving the question his attention, but I consider a more vigorous policy is required. It might be possible to prohibit fencing with lantana as is done in Coorg under the Noxious Weeds Regulation of 1914.

"*Exploitation.*—The Conservator says :—

> 'There is yet much engineering work to be done in connection with tramways and the use of steam power for working heavy timber out of narrow precipitous valleys. The old inefficient and slow traditional methods of the country cannot do half the work required and carting has become very expensive recently.'
>
> 'The remedy no doubt is to employ mechanical transport tramways and to convert more material by saw mills in the forests. Hitherto the difficulty of introducing mechanical means was due to the very scattered occurrence of the marketable species. Teak and Blackwood alone found a ready market and mixed as they are young and mature trees among a large number of unmarketable species in a sea of bamboo not more than one or two mature trees per acre were found ripe for felling. Consequently the Working Plan system adopted was the selection system and before introducing mechanical means all the Working Plans must be revised and a system approaching clear cutting with artificial regeneration must be adopted.'

"Mr. Gibson, Deputy Conservator of Forests, Bengal, has published a most interesting account of lumbering in the United States of America, in Southern Oregon and California and elsewhere. The most widely adaptable means is logging by donkey engine which moves under its own power. It is a powerful steam winch with one or more drums and can move by hauling on a cable hitched to a stump even over most difficult country if mounted on wooden sledges. It operates for log hauling usually over a distance of 200 to 700 yards, but can operate over a mile. Whether this method can be employed in our Forests is a matter for the Forest Engineer, but with labour becoming more expensive every year and also scarcer, the method will pay investigation. I consider it would be well if a Forest Officer could be deputed to study these methods. Mr. Gibson describes the locality where such instruction can be given (Seattle, United States of America).

"8. *Population.*—Attempts continue to be made to attract cultivators to the healthier towns and villages. The matter has had my constant attention, but less progress has been made than I hoped, due no doubt to the bad year and the amount of work the Divisional Forest Officers had to get through. In Kanara 316 acres of Revenue waste were afforested for cultivation. Proposals have been submitted to Government for afforestation of 9,000 acres of hangami kumri land in the Belgaum District. Thirteen families were induced to settle in Jagalbet and Vaini in the Supa Mahal of the Kanara District and were employed as cartmen by one contractor. Twenty acres were given to them for cultivation. I consider that it is useless to expect the population to increase in the middle of dense forests as no

concessions can make life attractive in such isolation, but there are some open villages such as Jagalbet and Nagargalli where perseverance and a wise and generous policy should be able to build up a larger population. These villages are being taken in hand. Pig are a constant nuisance and their increase has much to do with the contraction of cultivation. Some more scientific method of destruction must be found than shooting and trapping if we are to make much of an impression on the hundreds of thousands that exist, now that their natural enemies, the tiger and panther, are so much diminished. The steady growth of lantana gives perfect protection to pig and makes driving impossible in areas covered by this pest. This is one reason why the people do not make any effort to clear their village site or the strip round their fields, as when the trees are cleared lantana promptly takes possession.

"9. *Forest needs.*—Our Forest needs at present are: Improved methods of logging, improved communications and an increase of staff, especially of Assistants. Many of our coupes cannot be worked for lack of roads or cart tracks. In many parts tramways must inevitably replace our present cumbersome methods of transport: but before we can have tramways we must have roads. More has been done to improve our communications in the last two years than in the previous decade and Government has initiated a forward policy which will have a most beneficial effect on exploitation. We require an expert who can keep in touch with the timber market and by watching the direction of the demand can introduce new woods. This want which I noticed three years ago will be met by the appointment of a Forest Utilisation Officer. The manufacture of charcoal, which is now very much in demand, by the 'dry distillation' process is worth investigation. The by-products of charcoal which are wasted in smoke are wood naphtha, stockholm-tar, etc.; from wood naptha other products, methyl, acetone, etc., can be produced by lime treatment. Until, however, we have a sufficient staff it is impossible to expect progress in this direction: the Forest Officer at present has his time fully occupied with his routine duties.

"10. *Land Revenue Administration.*—In Kanara N. D. 4 Forest Mahals, in Kanara E. D. 3 Forest Mahals, in Kanara W. D. Supa Mahal and in Belgaum 2 Forest Mahals are under the Divisional Forest Officers. Proposals for constitution of 2 Forest Mahals in 21 forest villages in the Honavar Taluka of the Kanara District under the Divisional Forest Officer, Kanara S. D. as ex-officio Assistant Collector have been submitted to Government. The close connection which the Forest Officers have with the people is in the interest of both parties. The kumri policy of Mr. Marjoribanks as a Revenue Officer has resulted in a considerable area of waste land being taken up for rice cultivation.

"11. The problems of Kanara are not new. They have remained unchanged for a score of years and are now increased by the menace of lantana; an evil that is coming more into prominence every year. The orders of Government dealing with these problems are clear and a careful study of these orders by all concerned will considerably facilitate their task. I allude to such Government Resolutions as No. 4709, Revenue Department, dated 27th July 1900, and No. 1550, Revenue Department, dated 19th February 1910 and many others. The directions therein contained, all designed to improve the condition of the cultivators have too often been forgotten or overlooked. As regards Supa, for instance, Government directed elbow-room to be given to the villages by clearing the jungle within 200 yards and placed this duty on Collector himself and his staff. This order had been forgotten, and I had to bring it to the notice of the Collector and to direct action to be taken. Similarly the Collector has the power to give out areas of woodland hadi to encourage rice cultivation. No action had been taken on this. Any one who desires to tackle the problems of Kanara has a wealth of settlement reports, special reports, Government resolutions and orders on which to draw, which will repay patient study and will provide him with the remedies which Government has prescribed. It remains to see these remedies are systematically applied.

"In conclusion I consider that Mr. Copleston and his officers are to be congratulated on a successful year's work in spite of very great difficulties."

Sind Circle.—Commissioner in Sind (Mr. J. L. Rieu).—"The revenue of the year amounted to Rs. 7·7 lakhs against an average of Rs. 4·4 lakhs for the last five years, and the expenditure to Rs. 2·6 lakhs against an average of Rs. 2.1

lakhs. The surplus revenue compared with the previous year rose from Rs. 4.9 lakhs to Rs. 5.1 lakhs.

" 2. The increase of revenue, amounting to Rs. 39,839 over the revenue of the previous year, is mainly due to the fact that excellent prices were realized from the sale of coupes and dead wood owing to an unexpected increased demand from Mesopotamia. In the case of annual coupes the average rate per acre realized rose from Rs. 30·06 to Rs. 35.4.

" The grazing revenue decreased from Rs. 41,000 to Rs. 40,000. On the other hand the revenue from minor forest produce rose from Rs. 40,000 to Rs. 50,000. The decrease in grazing revenue is ascribed to the fact that at the beginning of the season owing to the low inundation there was practically no grass in the forests. Later on when an excellent pod crop became available in the forests, free passes were issued for a large number of animals, particularly in the Karachi and Hyderabad Divisions. The rise in the revenue from minor produce is attributed to realizations from the sale of pods and lac, which increased by Rs. 15,000 and Rs. 1,000, respectively.

" 3. The outturn of timber decreased by 35 per cent. from 3·07 lakhs cubic feet to 2 lakhs, while the revenue therefrom fell by 11 per cent. from Rs. 1·5 lakhs to Rs. 1·3 lakhs. The decrease is due to the influenza epidemic which seriously interfered with the working of coupes. Many contractors failed to complete their work during the year.

" 4. The fuel exploited during the year decreased from 216·9 lakhs cubic feet to 209·2 lakhs or 3 per cent.; while the revenue increased from Rs. 4·6 lakhs to Rs. 5·07 lakhs or 9 per cent. The increase in the revenue is due to increased demands from the Military Department and the higher prices paid by them.

" 5. During the year, which was one of exceptional drought, the unusually good pod crop was of great help in saving the lives of a very large number of cattle, particularly animals brought in from the severely affected tracts of the Kohistan.

" 6. The statement of disciplinary measures taken against the establishment shows an improvement over the last year except that the punishment of supersession was inflicted in 37 cases. Of these, 23 cases occurred in the Sukkur Division alone, a fact which indicates that no uniform policy is adopted in the different divisions in regard to this form of punishment.

" The number of resignations from the inferior establishment decreased from 54 to 39.

" 7. The inundation being exceptionally low, the area flooded by the river was only 1.09 lakhs acres against 5.6 lakhs acres in the previous year. There was no rain, and the forests were invaded by many cattle, mostly from the hills. The result was a very large increase of forest offences. The increase was most marked in the number of fires, which more than doubled, rising from 103 to 251. The area burnt rose from 3,846 acres to 10,685 acres. This increase occurred chiefly in the Larkana and Hyderabad Divisions and was the natural result of the very dry condition of the grass and the great increase in the number of people who entered the forests.

" Unauthorized fellings increased from 1,565 to 2,008 and illicit grazings from 1,693 to 1,717.

" The results of prosecutions were fairly satisfactory, 78 per cent. ending in conviction. The number of cattle impounded rose from 17,400 to 24,000.

" 8. With the cessation of the war the demands of the Military Department from Mesopotamia for the supply of fuel ceased altogether. Those from Quetta and Baluchistan have, however, been maintained. The contracts for the supply to units and hospitals in Karachi still continue.

" 9. The arrangements instituted at Sukkur and Rohri last year for the sale of firewood through contractors at fixed rates were attended with success and have been continued. The system was extended during the year to the town of Larkana.

"Estimates of the resources of the revenue jungles in the matter of firewood have been made for all districts except Hyderabad and Thar and Parkar, where the joint examination of the jungles by the Forest and Revenue Officers could not be undertaken during the year owing to the paucity of Forest Officers. With the cessation of the war the demand for fuel has decreased, and the work is no longer urgent; but it should not be dropped. It is desirable that Government should have information regarding the resources of its own revenue jungles, and the Conservator of Forests is being requested to proceed with the work.

"10. The project for supplying a steam tug and barges to the Forest Department for the conveyance of fuel has been referred back to the Conservator for a comparison of its cost with that of the present methods of transport.

"11. With regard to the quinquennial review for the five years ending 1918-19 furnished by the Conservator in accordance with the order contained in paragraph 2 of Government Resolution No. 2823 of 20th March 1912, the Commissioner has no special remarks to offer.

"The questions of policy and administration raised by the Inspector General of Forests in his note on his tour in Sind Circle were dealt with by the Deputy Conservator of Forests, Sind Circle, and the Commissioner in a special report which has recently been disposed of by the orders contained in Government Order No. 11262, dated the 27th October 1919.

"12. During the whole year there was only one Imperial officer of the department serving in Sind, and he held the double charge of the circle and the Karachi Division.

"Owing to insufficient rates of pay, the clerical establishments were generally under-manned. Casulties and resignations among the Executive staff reached a high proportion, in the Karachi Division as high as 40 per cent. These conditions are incompatible with progressive administration, and it is creditable to Messrs. Thomson and Aitchison and their staff that they should have produced the not unsatisfactory results recorded in the report."

CHAPTER VII.

Quinquennial Review.

The following is the summary of the progress made in the Forest Administration in the Bombay Presidency, including Sind, during the five years 1914-15 to 1918-19.

1.—Organization.

There were no changes in the cadre or in the pay of the Imperial or Provincial Forest Services except that the Chief Conservator (pay Rs. 2,150) was added to the former from 11th December 1917.

The strength of the Executive and Protective Forest Service at the beginning and close of the quinquennium stood as follows:—

	Number of Rangers on pay Rs.						Number of Foresters on pay Rs.						Number of Guards on pay Rs.			
	150	125	100	80	60	50	40	35	30	25	20	15	12	10	9	8
At beginning ..	6	12	17	28	32	24	19	34	56	100	85	62	440	729	1,655	288
				119						356					3,112	
At close ..	10	16	23	36	42	39	20	34	58	100	85	63	443	729	1,656	316
				166						360					3,144	

The territorial changes effected were:—

The forests of the Kolaba Collectorate were transferred from the Northern Circle to the Central Circle and those of the Nasik Collectorate *vice versâ* and simultaneously the headquarters of the former circle were changed from Bandra on the coast to Nasik above the ghat by Government Resolution No. 12823, dated 22nd December 1914.

The three Thana Divisions were reconstituted, the same number of charges being kept with the addition of the Igatpuri Range of the South Nasik Division to one of them, *vide* Government Resolution No. 11786 of 30th November 1916.

The Nasik District was divided from 2 into 3 divisions with effect from 1st March 1919 by Government Resolution No. 9767 of 20th September 1919. The above changes, while tending to equalize the areas of the two circles and the divisions, have been of much benefit to the officers in point of health.

There were no changes in the Central Circle except the one mentioned already.

In the Southern Circle, a fifth division was created in Kanara with a view to the amelioration of the condition of the Kumri Marathas and for the better protection and more intensive management of the valuable forests in Kanara and Dharwar. The Kalghatgi and Bankapur Ranges of the latter division were added to the Kanara new Northern and Eastern Divisions and the remaining unorganized portion of the same was amalgamated with the Bijapur Division, the combined charges being styled the Dharwar-Bijapur Division. These changes were introduced from 1st February 1916 as per Government Order No. 11396 of 27th October 1915.

The forests of the Ratnagiri Division with the exception of some area near the Kolaba boundary in the Southern Circle were transferred to the Revenue Department with effect from 1st July 1918 under Government Order No. 5205, dated 30th April 1918, Revenue Department.

In Sind, the Sukkur and Larkana Divisions were redistributed into three divisions, the third being designated Shikarpur with effect from 1st August 1917 under Government Order No. 9555 of 7th August 1917. This change was effected to facilitate forest administration. The name of the Jerruck Division was changed into Karachi by Government Order No. 212 of 3rd January 1918.

There is no doubt that the divisions at present existing are too large in extent for management by a single Divisional Forest Officer and their area will have to be reduced in the near future. Especially is this a fact in the intensively worked Kanara divisions, Belgaum and Surat. Assistants to the Divisional Forest Officers have been provisionally asked for in the reorganization scheme recently submitted to Government. Regeneration work has never been satisfactory owing to want of staff for supervising—also for execution—and, under the new proposed system of clear-cutting about to be introduced in revised working plans, even requirements for sylvicultural operations recognized up to the present will be insufficient. Everything, the whole future of the forest, will depend upon adequate, highly trained supervision. There is no use in blinking the fact that, for effectiveness, it will have to be European too; the forest-life and strenuous, physical exertion entailed make that an absolute *sine qua non* for successful issue. The ordinary, intensively worked division should certainly not exceed 200 square miles in area whereas they are now all well over 400. The sooner this is recognized, the better.

2.—Changes in Area.

The areas of forests at the beginning and close of the quinquennium were as follows:—

	In charge of the Forest Department.		In charge of the Revenue Department.		Total.
	Reserved.	Protected.	Reserved.	Protected.	
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.
At beginning ..	11,941·2	484·9	2,096·1	547·9	15,070·1
close ..	12,100·4	487·4	1,834·2	548·9	14,970·9
Difference ..	+159·2	+2·5	—261·9	+1·	—99·2

There was a net decrease of 99 square miles in the total forest area, which is made up of a loss of 261 square miles in the area in charge of the Revenue

Department, counterbalanced by a gain of 162 square miles in the area under the Forest Department. The former is due partly to disforestment of lands unsuitable for forest in favour of cultivation and partly to transfer of pastures containing tree-growth back to the management of the Forest Department to prevent their further denudation.

It would be well to recognize the fact that, management of forests by the Revenue Department is no management. None but the trained forest officer can be bothered with such management. While the demands of cultivation are recognized to be paramount; it must be a self evident fact that fuel and small timber are very necessary to the ordinary agriculturist in this country. To produce such, or to preserve what remains—let alone the question of increasing it or improving it—it is essential that there should be intelligent management by a trained staff with necessary restrictions upon the freedom of access to the public to certain portions under regeneration or under recovery from excessive grazing, etc. The Indian public have no knowledge whatsoever about forests and their advantages. It would be well if a few pamphlets or small books were introduced into schools dealing with this subject as is done in most European countries.

3.—Forest Settlements.

Forest settlement work has been completed in all the circles except as regards scattered lands included in the forest demarcation area in the Central Circle (Poona and Satara Collectorates) which are being taken up for reserved forests as opportunities occur. In the Southern Circle, the old settlements in Kanara and Belgaum which were very badly accomplished, in many cases forest and cultivation being mixed up too much, need revision. In Sind, settlements consist of afforestation of newly formed kachas after a five (now two) years' period to ascertain their stability.

The area finally settled at the beginning of the period under review was 12,426 square miles under the Forest and 2,644 square miles under the Revenue Department—total 15,070, and at the close was 12,588 square miles and 2,383 square miles, respectively, for the Presidency. This is contributed by the different circles as shown below:—

	In charge of the Forest Department.	In charge of the Revenue Department.
	Sq. m.	Sq. m.
Northern Circle	3,258	576
Central Circle	3,759	1,637
Southern Circle	4,415	170
Sind Circle	1,156	..
Toal	12,588	2,383

Some of the Kanara and Belgaum settlements date from the years 1876 and the early eighties and are now hopelessly out of date; indeed they were originally very badly done—in many cases the boundaries are so intermixed between cultivation and forest that protection of the latter is next to impossible. These should be revised. The question came up in this last quinquennium but nothing was done. In the Northern Circle, also, the settlements in Mokhada parts of Peint are ridiculous and have had the effect of destroying large areas of exceedingly valuable teak forest without any adequate return in either the well-being of the inhabitants—indeed, it has kept them backward, improvident and useless to society, or the improvement of the land.

4. Demarcation.

The total length of artificially marked boundaries in the Presidency at the close of 1918-19 was 38,881 running miles as compared with 37,191 miles at the commencement of the quinquennium as shown below:—

	On 1st July 1914. Linear miles.	On 30th June 1919. Linear miles.
Northern Circle	8,359	8,334
Central Circle	12,893	12,910
Southern Circle	13,852	15,607
Sind Circle	2,087	2,030
Total	37,191	38,881

The decrease in the Northern Circle is due to petty disforestments and straightening of boundaries and in Sind to variations in the Kachas' formed by the action of the river. The increase in the Central Circle may be attributed to afforestation of lands situated in the forest demarcation area and that in the Southern Circle partly to transfer of pasture areas from the control of the Revenue Department, partly to cutting and clearing Mysore (47 miles) and Goa (40 miles) boundaries. 103 miles in the Northern, 4 miles in the Central, 117 miles in the Southern Circle—in all 224 miles remain to be newly demarcated.

5. Surveys.

No work was done by the Forest Topographical survey during the five years. The areas surveyed have all been mapped and all maps have been published.

6. Working Plans.

In all 11 original and 7 revised plans were sanctioned during the period in the Presidency as shown below :—

	Original.	Revised.
Northern Circle ..	2	*Nil.*
Central Circle ..	4	*Nil.*
Southern Circle ..	5	5
Sind Circle ..	*Nil.*	2
Total ..	11	7

The areas under sanctioned working plans at the beginning and close of the quinquennium were :—

	At beginning.	At close.
	Sq. m.	Sq. m.
Northern Circle ..	2,442	2,780
Central Circle ..	2,264	2,296
Southern Circle ..	1,402	1,686
Sind Circle ..	1,032	1,079
Total ..	7,140	7,841

The state of things at the close of the period is that out of the total forest area of 12,588 square miles for the Presidency as a whole :—

(1) Sanctioned plans exist for 7,841 square miles, *i. e.*, 62 per cent.

(i) of these, revision is in progress for 2,850 square miles.

(ii) and revision is required for 1,765 square miles.

(2) new plans are in course of preparation for 1,386 square miles.

(3) plans have still to be taken in hand for 1,288 square miles.

(4) and no plans are considered to be necessary at present for 2,075 square miles.

Owing to shortage of officers new work and revision are in abeyance and has been in abeyance ever since the commencement of the war. It continues in abeyance owing to the lack of staff and much to the detriment of the forests for which revised plans are required urgently as for example, the high forests of Kanara district. Until competent officers are available to carry out these revisions, work must proceed more or less tentatively and that, again, means probably loss of capital and even present revenue. It may mean the loss of considerable revenue for the future or, rather, the realization of such. Proposals have been submitted for the strengthening of the working plans branch of the Presidency but they are still under consideration of Government. However, even in the favourable case of early sanction to those proposals, there will be an interval of at least two or three years before recruitment and training can supply the want.

7. Communications and Buildings.

The expenditure on 1-Communications, 2-Buildings and 3-Wells and other works for the Presidency amounted to Rs. 14,26,100 during the period under

review as against Rs. 6,20,202 during the previous five years an increase of Rs. 8,05,898. By sub-heads these amounts were :—

	New works.		Repairs.		Total.	
	1909-14.	1914-19.	1909-14.	1914-19.	1909-14.	1914-19.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Communications ..	95,151	5,71,268	1,35,674	3,67,581	2,30,825	9,38,849
Buildings ..	2,74,223	2,99,423	73,380	1,05,051	3,47,603	4,04,474
Other works ..	24,689	51,762	17,085	31,015	41,774	82,777
Total ..	3,94,063	9,22,453	2,26,139	5,03,647	6,20,202	14,26,100

The increase evinces that considerable attention is now being devoted to the very remunerative process of opening up the forests for export of forest produce and to providing very necessary rest-houses and quarters for the staff.

Progress was also made in the construction of wells near quarters and in repairs to natural tanks in the forests.

More extensive works have been carried out especially in the Southern Circle. A forest railway in the Kanara Northern Division, from Dandeli on the Kalinadi river where all the big timber from a wide area of the best teak jungles of Kanara is brought by carts, to Alnavar on the Madras and Southern Mahratta Railway was commenced in December 1917 and completed by February 1919 when it was opened for traffic. The length of the line is 19½ miles and its aggregate cost Rs. 5,33,519. A survey for the extension of the line to Bhagvati in the same division was completed last season. The Conservator, Southern Circle, reports as follows :—

"Mr. T. S. Pipe whose services were temporarily lent to this Department started work in November 1916 on the Kaneri and Kalinadi rivers with a view to improving the floating facilities. He returned to the Public Works Department in May 1917. Both rivers were carefully surveyed and experimental weirs were constructed on the Kaneri river. These weirs did not hold against the monsoon floods, the river with an average fall of 50 feet per mile being little better than a mountain torrent. The enormous velocity of the monsoon floods render control of the flow practically impossible. Rock blasting, to get a narrow channel through the boulders, has proved useful and floating with the help of elephants is now possible some miles above the Jogli slide.

"The survey of the Kalinadi from the mouth of the Kaneri to the tidal limits of the estuary showed that 184 regulator weirs and drains estimated to cost 5½ lakhs were required.

"The project was finally abandoned as the initial outlay and upkeep entailed too great expenditure for the quantity of timber to be floated. Mr. Pipe's services were again lent to the Department from February 1918 when he took up work on buildings required at the depôt at Dandeli where saw-mills were set up at the terminus of the forest railway for supply of Munition timber. Besides this work Mr. Pipe has surveyed new roads and existing roads and has superintended works of construction in all five divisions of Kanara and in Belgaum division. The ruling gradient taken is 1 in 20 and considerable progress has been made in improving the lines of export for heavy timber.

"He has designed standard types of forest buildings and supplied the divisional Forest Officers with detailed plans and estimates.

"Similarly full instructions have been given for 130 bridges and culverts.

Detailed notes on road construction, maintenance, repairs, draining materials have been supplied to all Divisional Forest Officers. Also a series of 100 type-designs for bridges, culverts and drains of 2 feet to 29 feet height and 2 feet to 24 feet span with tables showing quantities and details of materials required compiled in book-form is now ready and copies will shortly be supplied to all Divisional Forest Officers and Range Forest Officers.

"There is yet much engineering work to be done in connection with tramways and the use of steam power for working heavy timber out of narrow precipitous valleys. The old inefficient and slow traditional methods of the country cannot do half the work required and carting has recently become very expensive.

"Mr. Pipe has taken great pains in instructing Divisional Forest Officers, Sub-Divisional Forest Officers and Range Forest Officers wherever works have been in progress and the standard of work on roads and buildings is improving. His services are invaluable to the Department."

8. Forest Offences.

The average annual number of forest offences reported during the five year period under review compares with that in the preceding five years as follows:—

	Northern Circle.		Central Circle.		Southern Circle.		Sind Circle.		Total		Difference.
	Present quinquennium.	Previous quinquennium.	Present quinquennium.	Previous quinquennium.	Present quinquennium.	Previous quinquennium.	Present quinquennium	Previous quinquennium	Present quinquennium.	Previous quinquennium.	
Injury to forests by fire ..	375	464	395	518	1,045	819	131	193	1,946	1,994	—48
Unauthorised fellings ..	2,774	2,739	3,275	3,820	2,654	2,755	1,644	843	10,437	10,157	+ 190
Unauthorised grazing ..	2,483	1,241	2,769	3,349	1,447	965	1,999	2,077	8,698	7,632	+ 1,066
Miscellaneous ..	276	248	670	567	249	264	40	47	1,235	1,126	+ 109
Total ..	5,908	4,692	7,109	8,254	5,395	4,803	3,814	3,160	22,226	20,909	+ 1,317

There was an increase of 1,317 offences on the whole which is shared by the Northern, Southern and Sind Circles. It occurs mainly under 'grazing' and to a less extent under 'fellings' and 'miscellaneous.' Though there was a decrease of 48 cases under 'fire' for the Presidency as a whole, the Southern Circle alone shows a rise of 226. In the last year of the period under review fire cases increased especially in Kanara, notwithstanding that free grazing was allowed more liberally in that year than ever owing to famine. The increase under 'fellings' may be ascribed to better control and that under 'grazing' to trespasses in closed forests especially in 1918 although a considerable area of such forest was, according to custom, thrown open that year as a famine relief measure. The rise under Miscellaneous' was chiefly due to encroachments.

9. Fire Protection.

The average area under systematic fire protection and the average of failure during the two quinquennial periods compare as shown below:—

Circle.	Average area in square miles.					
	1909-14.			1914-19.		
	Attempted to be protected.	Failure.	Percentage of success.	Attempted to be protected.	Failure.	Percentage of success.
Northern ..	2,519	67.7	97.3	3,254	54.7	98.3
Central ..	4,564	266.2	94.1	3,524	223.7	93.6
Southern ..	1,600	108.2	93.2	3,654	254.2	93.1
Sind ..	1,130	18.9	98.3	976	7.4	99.2
Total ..	9,813	461.0	95.3	11,408	540.	95.3

Though the area attempted to be protected increased by 1,595 square miles (16 per cent.) and that burnt by 81 square miles (17 per cent.), the percentage of area protected remained the same as in the previous period. The Northern Circle attempted 735 square miles more and gained by 1 in the percentage of success. The Southern Circle attempted a still larger area, *viz.*, 2,054 square miles and yet maintained the percentage of success. In the Central and Sind Circles, the areas attempted diminished by 1,040 and 154 square miles respectively, nevertheless the percentage of success remained almost the same in both.

Year by year protection from fire improves, owing, doubtless, to the efficiency of the protective staff as well as to the gradual education of the villager. This latter is, however, a very slow process.

10. Proteciton from Cattle.

The average areas annually open and closed to grazing during the two periods were as follows :—

	Average area in square miles.					
	Open to all animals	Percentage.	Open to all animals except browsers.	Percentage	Closed to all animals.	Percentage.
Present quinquennium .	3,526	23.5	8,881	59.2	2,595	17.3
Previous quinquennium..	3,534	23.5	9,270	61.5	2,269	15.0
Difference ..	—8	..	—389	..	+326	..

During the period under review the average area annually open to cattle other than browsers diminished by 389 square miles and that open to browsers by 8 square miles. The average forest area likewise diminished by 71 square miles. There was no change in the proportion of the total forest area open to browsers but that open to cattle dropped from 61·5 to 59·2 per cent.

As working plans proceed, the area brought under closure increases but due provision for grazing is made in all plans.

The average number of all animals admitted to graze in the forest increased from 2,297,742 in the previous quinquennium to 2,451,691 in the period under review. By circles these figures were :—

	1909-14.	1914-19.
Northern Circle ..	773,683	911,294
Central Circle ..	1,044,745	920,774
Southern Circle ..	420,093	457,167
Sind Circle ..	59,221	162,456
Total ..	2,297,742	2,451,691

The above shows a tendency towards increase. This mainly occurs under browsers in Sind where the average number of these animals rose from 42,558 in the previous period to 97,300 in the current period. The reason for this increase is attributed principally to the introduction of the new grazing rules in that province since 1914. It is, however, evident that the forests there are hardly able to maintain so many browsers, especially goats, without serious damage. There are also increases in all circles under ' cattle ' and these must be steady as long as the ridiculously low rates of fee encourage people to keep useless cattle.

11. Yield and Outturn.

The average annual outturn of the forests for the two periods was as follows :—

(i) By Government agency and purchasers.

Circle.	Timber and fuel. Cubic feet.		Bamboos. No.		Sandalwood. Value.		Minor produce. Value.	
	Average 1909-14.	Average 1914-19.	Average 1909-14.	Average 1914-19.	Average 1909-14.	Average 1914-19.	Average 1909-14.	Average 1914-19.
					Rs.	Rs.	Rs.	Rs.
Northern ..	6,956,867	7,665,587	4,057,084	4,669,000	..	..	6,882	1,58,821
Central ..	4,337,269	4,132,902	1,129,169	1,091,079	..	..	4,99,048	3,43,605
Southern ..	8,957,562	12,871,812	4,599,952	4,128,227	32,566	46,182	1,36,556	1,27,242
Sind ..	16,027,116	18,047,249	..	..	..	..	75,732	79,545
Total ..	36,278,814	42,717,550	9,786,205	9,888,806	32,566	46,182	7,18,218	7,09,213

The average annual outturn of timber and fuel increased by 18 per cent. for the Presidency as a whole. In the Northern, Southern and Sind Circles, the increases were 10, 44 and 13 per cent respectively, but the Central Circle showed

a decrease of 5 per cent. The comparatively large increase in the Southern Circle was no doubt due to opening up of the hitherto inaccessible forests in Kanara and Belgaum by the extension of communications and to some extent to increased working of coupes and high forest fellings, on account of war supply. Nevertheless, the output is not what it ought to have been, considering the heavy expenditure on roads and improved facilities for transport. The reason is that labour difficulties have increased so much that very high rates have had to be paid to the timber contractors in that circle and in spite of this many have failed to carry out their contracts. The increase in the Northern and Sind Circles is mainly due to supply of timber and fuel to the Munitions. From the nature of its forests (containing mostly small stuff not fit for export) the Central Circle could take only a small share in supplying timber to the Army but it undertook to supply it with grass from Khandesh on a large scale.

The deviations under bamboos and minor produce are small and call for no remark.

(ii) By free grantees.

Circle.	Timber and fuel. Cubic feet.		Bamboos. No.		Minor produce. Value.	
	1909-14.	1914-19.	1909-14.	1914-19.	1909-14.	1914-19.
					Rs.	Rs.
Northern ..	29,192	18,438	14,059	23,600	33	176
Central ..	66,302	28,901	12,691	6,028	488	3,273
Southern ..	44,902	69,677	34,894	81,117	5,263	8,234
Sind ..	11,566	7,227	..	..	9,359	4,895
Total ..	151,962	124,237	61,644	110,745	15,143	16,578

These grants vary according to circumstances as the majority of them are made for repairs to houses and rebuilding them in case of destruction by fire or flood.

(iii) By concessionists.

Circle.	Timber and fuel. Cubic feet.		Bamboos. No.		Mninor produce. Value.	
	1909-14.	1914-19.	1909-14.	1914-19.	1909-14.	1914-19.
					Rs.	Rs.
Northern ..	10,436,745	8,130,441	1,887,609	1,924,120	4,31,065	3,96,970
Central ..	319,797	623,633	10,240	1,558	33,541	34,643
Southern ..	3,341,686	3,341,686	3,000,000	3,000,000	4,80,387	4,80,387
Sind ..	101,001	19,849	..	..	13,730	4,246
Total ..	14,199,229	12,115,609	4,897,849	4,925,678	9,58,723	9,16,246

These are mere estimates based on general requirements of the people who are allowed privileges under codes prescribed for each district.

12. Financial Results.

The average annual financial results for the two quinquennial periods compare as follows :—

Circle.	Revenue.		Expenditure.		Surplus.		Difference.
	1909-14.	1914-19.	1909-14.	1914-19.	1909-14.	1914-19.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern ..	13,92,608	21,70,720	6,48,730	7,86,401	7,43,878	13,84,319	+ 6,40,441
Central ..	8,02,733	9,05,810	5,55,039	5,47,582	2,47,694	3,58,228	+ 1,10,534
Southern ..	16,69,402	23,37,900	9,72,862	15,85,451	6,96,540	7,52,449	+ 55,909
Sind ..	4,07,179	5,67,760	2,02,977	2,30,239	2,04,202	3,37,521	+ 1,33,319
Total ..	42,71,922	59,82,190	23,79,608	31,49,673	18,92,314	28,32,517	+ 9,40,203

The average gross revenue, expenditure and surplus all show a general increase, the increase in the totals for the Presidency being 40·0 per cent, 32·3 per cent and 49·7 per cent, respectively. By circles these were :—

	Per cent.	Per cent.	Per cent.
Northern Circle ..	55·8	21·1 and	86·0
Central Circle ..	12·8	—1·2 „	44·3
Southern Circle ..	40·0	62·8 „	7·9
Sind Circle ..	39·5	13·3 „	65·7

It is very satisfactory that the net increase has risen from year to year in spite of a considerable increase in capital expenditure on communications and buildings during the period under review as explained already. There is every hope that this rise in income will be permanent and that it will considerably increase when the schemes for such constructions are fully workd out and improved facilities in extraction and transport of forest produce are attained.

13. Forest Education.

A vernacular forest class in each circle was held for eight months in a year from March to October for training guards for foresterships. Selected men from each division in a circle were brought together and given a course of theoretical and practical instruction by an officer of the provincial forest service. But the course being too short and the material not of the right type, the results were not what were required. This sort of training had, therefore, to be abandoned.

During the period under review 33 students passed out of the Forest College at Dehra Dun, of whom 32 passed by the higher standard and 1 by the lower standard.

The establishment of a local Forest College at Dharwar (Southern Circle), which has been under consideration during the whole period under review and even before, will, it is hoped, be accomplished by the end of the current year 1919-20. This will be the Presidency centre for training, not only ranger and forester-probationers, but also surveyors, guards and even clerks.

14. Research and Experiments.

The efforts made under this head chiefly are narrated below :—

1. *Timber seasoning.*

Timber seasoning experiments were carried out by the Forest Economist in the Kanara forests from 1914-15. These were finished and the results were published in February 1918, which are :—

Species treated.	Method of seasoning recommended.
1. Nana (*Lagerstrœmia microcarpa*) ..	(1) Immerse in water for a year, season on land for 6 months, convert and season under cover for 6 months. (2) Convert green, immerse in water for 3 months followed by seasoning under cover for 9—12 months.
2. Dhamni (*Grewia tiliœfolia*) ..	Convert green, immerse in water for 4—6 weeks and season under cover for 16—18 months.
3. Sissum (*Dalbergia latifolia*) ..	Season in rough sawn squares for 18—24 months.
4. Karimuttal (*Ougeinia dalbergiodes*).	Season in rough squares for 1 year, convert and season under cover for 1 year or convert green and season under cover for 12—18 months.
5. Jamba (*Xylia dolabriformis*) ..	Immerse in tidal creeks or fresh water for 1 year followed by seasoning on land for 9 months and subsequent conversion and seasoning for a short period under cover. Where water seasoning is not feasible convert as soon as after felling as possible.
6. Honne (*Pterocarpus Marsupium*) .	Conver: green, immerse in running water for 6 weeks or in stagnant water 4 months and season under cover in well stacked open piles for 12 months.

Species treated.	Method of seasoning recommended.
7. Kindal (*Terminalia paniculata*) ..	(1) Convert green and season under cover for 12—18 months.
	(2) Immerse logs in tidal creeks or running water for a year, season on land for 15 months, convert and season under cover for a short period.
8. Ippi (*Bassia latifolia*) ..	Convert green, immerse in water for 4—6 weeks and season under cover for 12 months.
9. Heddi (*Adina cordifolia*) ..	Convert from green logs and season for 12 months under cover.

2. *Jungle-wood sleepers for railway line.*

A trial lot of Matti (*Terminalia tomentosa*) sleepers was supplied from Kanara to the North Western Railway and laid on 1st August 1911. The result reported in 1916 was :—

"With bearing plates—Fifty-eight laid down of which 52 are in good order, 4 cracked at one end, not serious, 1 surface cracks, 1 badly cracked.

"Without bearing plates—Fifty-eight laid down. Fifty in good order, 4 cracked at one end, not serious, 3 surface cracks, in some cases somewhat serious, 1 seriously cracked but not sufficiently so as to cause rejection".

Other annual reports are similarly favourable.

A small lot of Jamba (*Xylia dolabriformis*) sleepers cut from large green trees as well as from smaller trees were stacked in the shade for nine months. In both cases the same faults of heart shake and bad cracking were observed.

3. *Wood blocks for street pavement.*

About 10,000 untreated Jamba (*Xylia dolabriformis*) paving blocks 9 inches × 5 inches × 3 inches and an equal number of them treated with green oil were sent to the Bombay Municipality for trial from Kanara. Another 20,000 blocks 6 inches × 5 inches × 3 inches prepared of teak refuse in the mills were also sent. These were put down on an area of about 7,522 square feet of Frere road—a road most heavily subjected to cart traffic in the 1915 dry season and successfully passed through two monsoons according to the report received from the Municipal Engineer. As a successful result of the experiment, the Municipality ordered a fresh consignment of paving blocks in 1917. Such wooden pavings ought to prove most advantageous in big cities like Bombay both from financial and sanitary point of view, while a large mass of teak blocks lying in the jungles from the bottoms of old logs which are otherwise unsaleable could be advantageously utilized in the above manner by means of saw mills and would produce a considerable revenue.

4. *Experiments with exotics.*

Experiments with introduction of various species of *Eucalyptus Grevillea* and *Casuarina* are being carried on with good promise.

5. *Cultivation of tannin-producing species.*

The extension of tannin-producing species received attention. Collection and sowing of tarwad (*Cassia auriculata*) seed was carried out on a large scale in all circles during the past two years. The results, though delayed by lack of rain in 1918, will, it is hoped, be satisfactory in the future. Similarly divi-divi (*Caesalpinia coriaria*) was sown in all circles with good results.

6. *Propagation of Lac.*

Cultivation of lac was carried out on a small scale in the Central Circle but with no good results ; though propagation is simple, protection of the insects from ants completely failed.

In Sind, propagation of lac insect was attended with little success but where it has appeared naturally, prospects are hopeful.

7. *Experiments in resin.*

Experiments in tapping 'Salai' (*Boswellia serrata*) were carried out with considerable success in the Panch Mahals and North Nasik of the Northern Circle and in North Khandesh of the Central Circle. 7 cwts. of gum-oleo-resin from the

latter circle was supplied to the Institute at Bangalore and the Eastern Development Company, Bombay, for test. The tree exists in great numbers in the Satpura hills in Khandesh. The following remark is quoted from the Inspector General's note :—

> " Of the three products obtainable from the *Boswellia* crude resin, the turpentine, gum and resin, the first two have been reported on favourably for commercial purposes, and when the problem of making the gum suitable for commercial mucilage has been solved, there is every hope of the commencement of a new forest industry which may be expanded to larger dimensions with its favourable situation and large supplies of ' salai '. Khandesh should be able to take an important part in the development or this when it comes."

8. *Experiments in oils.*

A portable steam-still was experimentally erected in North Nasik of the Northern Circle and oil from Rosha grass was extracted. The product was of better quality than the best oil obtained by country processes.

15. Administration and Control.

One of the most important departmental features of the period was the institution of the General Direction Circle which was administratively sanctioned in 1914 but was held in abeyance owing to financial stringency. Mr. T. R. Bell who was Senior Conservator of Forests in charge of Southern Circle was appointed Chief Conservator from the 11th December 1917. Mr. Bell continued to hold the post till the end of the period under review.

The several Conservatorships were held as follows :—

Northern Circle.

(1)	Mr. W. E. Copleston	.. From 1st July to 16th October 1914.
(2)	„ O. H. L. Napier	.. „ 17th October 1914 to 22nd June 1915.
(3)	„ W. F. D. Fisher	.. „ 23rd June 1915 to 30th June 1919.

Central Circle.

(1)	Mr. G. P. Millett	.. From 1st July 1914 to 25th June 1915.
(2)	„ O. H. L. Napier	.. „ 26th June to 21st September 1915.
(3)	„ D. A. Thomson	.. „ 22nd September to 1st November 1915.
(4)	„ O. H. L. Napier	.. „ 2nd November 1915 to 1st April 1919.
(5)	„ J. Dodgson	.. „ 2nd April to 30th June 1919.

Southern Circle.

(1)	Mr. T. R. Bell	..From 1st July 1914 to 16th December 1917.
(2)	„ W. E. Copleston	.. „ 17th December 1917 to 30th June 1919

Sind Circle.

(1)	Mr. D. A. Thomson	..From 1st July to November 1914.
(2)	„ E. G. Oliver	.. „ November 1914 to 13th November 1915.
(3)	„ H. L. Newman	.. „ 14th November to 14th December 1915.
(4)	„ E. G. Oliver	.. „ 15th December 1915 to 14th April 1916.
(5)	„ G. R. Duxbury	.. „ 15th April 1916 to 20th December 1917.
(6)	„ H. L. Newman	.. „ 21st December 1917 to 22nd January 1918.
(7)	„ D. A. Thomson	.. „ 23rd January to 3rd November 1918.
(8)	„ P. E. Aitchison	.. „ 4th November ro 30th June 1919.

Messrs. G. P. Millett, Conservator and E. G. Oliver and N. Gustasp, Deputy Conservators, retired from service during the period.

Mr. W. C. Milne, Deputy Conservator, who was attached to 21st Pioneers on 28th July 1916 died of enteric fever in Mesopotamia in November 1917.

The following officers joined the forces during the war :—

Mr. J. B. Brooks	.. 8th November 1917 to 19th November 1918.
„ D. B. Sothers	.. 23rd April 1915 to 20th December 1918.
„ R. P Dalley	.. 3rd August 1916 to 13th November 1918.
„ D. R. S. Bourke	.. 26th July 1916 to 30th September 1919.
„ R. W. Inder	.. 29th August 1916 to 27th May 1918.
„ J. D. Maitland-Kirwan.	..

The following officers were deputed in succession as Timber Purchasing Officers under the Munitions :—

Mr. E. M. Hodgson	.. 16th March 1917.
„ P. E. Aitchison	.. 4th December 1917.
„ R. W. Inder	.. 28th May 1918.
„ H. L. Newman	.. Up to 14th May 1919 when he proceeded on leave.

Mr. D. A. Thomson, Deputy Conservator, was deputed as Controller, Famine Fodder, from 3rd November 1918 to 31st July 1919, when he proceeded on leave.

There were numerous changes in the Divisional charges due especially to deputation of officers on war service and under the Munitions.

The Inspector General of Forests visited all the three Presidency circles in the fair season of 1917 and made a detailed tour through the important forests in each with a view to advise on working plans.

The Inspector General also visited Sind and made a tour of about three weeks in December 1917 in the important forests of Larkana, Hyderabad and Karachi divisions to advise on matters connected with forest administration.

16. General Remarks.

The most noteworthy feature of the period under review is that it almost coincides with the duration of the great war. The deputation of several officers to war duty weakened the strength of the already inadequate staff. War supply works received the primary attention of the Department even to the neglect to some extent of the usual works. All expenditure was curtailed and only such projects as were likely to be useful for the extraction of Munitions were allowed to be undertaken. The department owes the building of the Dandeli-Alnavar railway to this policy. The achievement of that object was itself a great point gained.

The last year of the period was over-shadowed by scarcity and fodder famine with its attendant results of dislocation of trade and diversion of the energies from their duties proper to the conduct of famine fodder operations. These were carried out on a more extensive scale than in any of the previous successive famines of 1911-12, 1912-13 and 1913-14. Mr. D. A. Thomson was specially deputed as Controller.

The influenza epidemic played great havoc throughout the country during 1918.

His Excellency the Governor of Bombay visited the North Kanara division in the Southern Circle in May 1916 and devoted several days to an inspection of the forests and works going on. His Excellency went into the matter of forest development on the spot and summoned the local forest officers to a conference which was also attended by the Commissioner. His Excellency also visited the Nersol slope forests in Kanara Eastern Division in November 1917 and saw a good deal of the jungles and enquired closely into their working. It was mainly due to this visit that the present development of the activities of the Forest Department was made possible. It was immediately followed by a more generous allotment of funds for communications and the approval of the needed scheme for expansion of staff. The former result has already been thoroughly justified by the much increased revenues of the last year or two.

A criminal tribe settlement was established at Khanapur in the Belgaum division (Southern Circle) in 1916. This consisting of 450 souls has been very useful to the department. Another is going to be set up at Dandeli—the terminus of the forest railway in North Kanara.

In addition to the saw mills working in the Kanara, Northern Division, (Southern Circle), three more were procured for the other three important divisions of Kanara and commenced work in 1917.

T. R. BELL,
Chief Conservator of Forests,
Bombay Presidency.

APPENDICES

FORM No. 7.—*Area of Reserved Forest, 1918-1919.*

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.									
Panch Mahâls ...	Panch Mahâls.	212,152	331 312	...	...	212,152	331 312	.....	
Surat ...	Surat ..	51,791	80 591	...	...	51,791	80 591	.....	
	Dângs (leased).	211,795	330 595	...	...	211,795	330 595	.....	
North Thâna ...	Thâna ...	221,162	345 362	(a) 144	(b) 10	221,296	345 496	(a) 5091 25-4-1918, (a) 9485 19-9-1918. (b) 2235 4-3-1919.	
West Thâna ..	Do. ...	184,847	288 527	...	...	184,847	288 527	.....	
East Thâna ..	Do. ...	293,495	458 375	...	...	293,495	458 375	.....	
West Násik ...	Násik ...	224,586	350 596	(a) 13	...	224,599	350 599	(a) 3405 1-4-1919, (a) 3616 7-4-1919.	
North Násik ...	Do. ...	331,930	518 410	...	...	331,930	518 410	.....	
East Násik ...	Do. ...	189,579	296 139	...	...	189,579	296 139	.....	
Ahmedabad ..	Ahmedabad	12,032	18 512	...	...	12,032	18 512	.....	
	Total, Northern Circle.	1,933,369	3,020 569	157	10	1,933,516	3,021 76		
CENTRAL CIRCLE.									
East Khándesh ...	East Khándesh.	511,884	799 524	...	...	511,884	799 524	.....	
West Khándesh ...	West Khándesh.	494,846	773 126	*15,348	...	510,194	797 114	7186 * 9-7-1918 ; 11346 19-11-1918.	
North Khándesh ..	North Khándesh.	556,196	869 36	†83	...	556,279	869 119	†1298 6-2-1919.	
Poona ...	Poona ...	646,223	1,009 463	‡15	§18,465	627,774	980 574	‡9181 19-9-1918, §6923 2-7-1918 ; 11677A 29-11-1918.	

FORM No. 7.—*Area of Reserved Forest, 1918-1919*—continued.

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
CENTRAL CIRCLE—*contd.*									
Sátára ...	Sátára ...	454,386	709 626	*285	*117	454,554	710 154	5674 / 15-5-1918, 7852 / 29-7-1918, *9156 / 7-9-1918, 10502 / 25-10-1918, 1095 / 1-2-1919, 7262 / 11-7-1918, 1375 / 6-2-1919, 7086 / 5-7-1918, 8282 / 12-8-1918.	
	Do. ...	232	0 232	†236	...	468	0 468		† Rectification of error.
Kolába ...	Kolába ...	287,844	449 484	‡1,731	‖0—15	289,575	452 395	‖7899 / 31-7-1918,	‡ *Vide* G. R. No. 5205, / 30-4-1918
Ahmednagar and Sholápur.	Ahmednagar and Sholápur.	447,924	699 564	...	**112	447,811	699 451	**7622 / 23-7-1918, 6280 / 6-6-1918, 9179 / 10-9-1918, 6622 / 19-6-1918, 9180 / 10-9-1918, 8441 / 16-8-1918,	
	Total, Central Circle.	3,399,535	5,311 495	17,698	18,694	3,398,539	5,310 139		
SOUTHERN CIRCLE.									
Kánara, N. D. ...	Kánara and Dhárwár.	272,903	426 263	142	††37	273,008	426 368	10035 / 8-10-1918, 4079 / 23-4-1919. 4081 / 23-4-1919.	†† Errors rectified.
Kánara, E. D. ...	Do. ...	377,665	590 65	...	2	377,663	590 63	8601 / 22-8-1918, 10037 / 8-10-1918,	
Kánara, C. D. ...	Kánara ...	500 903	782 423	...	19	500,884	782 404	10144 / 11-10-1918, 10819 / 5-11-1918, 11336 / 19-11-1918, 1227 / 6-2-1919. 4221 / 25-4-1919.	
Kánara, S. D. ...	Do. ...	410,922	642 42	§$\frac{5}{5}$	‡‡1,976	408,946	638 626	§10573 / 28-10-1918, ††8060 / 5-8-1918. 1 016 / 9-11-1918, 4222 7977 / 2-8-1918.	

FORM No. 7.—*Area of Reserved Forest, 1918-1919*—concluded.

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.		Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.			
1	2	3	4	5	6	7	8	9		10
SOUTHERN CIRCLE—*contd.*										
Kánara, W. D. ...	Kánara ...	521,137	814 177	...	11	521,126	814 166	10029; 8-10-1918 1941 24-2-1919	1099; 1-2-1919 3918 16-4-1919	
Belgaum ...	Belgaum ...	436,593	682 113	534	‡27	437,100	682 620	9863; 1-10-1918 10838; 5-11-1918 2886; 20-3-1919 1094; 1-2-1919 1182; 4-2-1919 2887; 20-3-1919 11014; 9-11-1918	9977; 4-10-1918 10820; 5-11-1918 1094; 1-2-1919 1181; 4-2-1919 2399; 8-3-1919 ‡8647; 23-8-1918 2888 20-3-1919	
Dhárwár-Bijápur ...	Dhárwár and Bijápur	316,026	493 506	*186	§167	316,045	493 525	*4082; 23-4-1919 §6422; 11-6-1918 ‡624; 23-9-1918 522; 18-1-1919 5180; 20-5-1919	4080; 23-4-1919 §7365; 15-7-1918 ‡988; 5-10-1918 34044; 1-4-1919 523; 18-1-19	
Ratnágiri ...	Ratnágiri...	12,051	18 531	...	...	12,051	18 531	10547 26-10-1918		
	Total, Southern Circle.	2,848,200	4,450 200	862	2,239	2,846,823	4,448 103			
SIND CIRCLE.										
Sukkur ...	Sukkur and Upper Sind Frontier.	209,858	327 578	‡4,486	**955	213,389	333 269			‡ Gained by action of the river. **Lost by action of the river.
Shikárpur ...	Sukkur and Upper Sind Fronter.	116,644	182 164	...	††904 **448	115,292	180 92	††Disforested *vide*—Government Resolution, No. 2989 of 24th March 1919.		
Lárkána ...	Lárkána Nawábshah.	112,091	175 91	‡2,582	**4,905	109,768	171 328			
Hyderabad ...	Hyderabad Karáchi and Nawábshah.	160,253	250 253	‡7,809	**9,261	158,801	248 81			
Karáchi ...	Hyderabad Karáchi.	142,942	223 222	‡2,429	**3,363	142,008	221 568			
	Total, Sind Circle.	741,788	1,159 28	17,306	19,836	739,258	1,155 59			
	GRAND TOTAL, PRESIDENCY.	8,922,892	13,942 12	36,023	40,779	8,918,136	13,934 376			

FORM No. 7-A.—*Area of Protected Forest, 1918-1919.*

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.									
Surat ...	Dángs (leased).	208,013	325 13	...	...	208,013	325 13		
North Thána ...	Thána ...	95,619	149 159	...	31	95,488	149 128	7067 / 4-7-1918, 13412 / 20-12-1918, 13040 / 9-12-1918, 2239 / 4-3-1919.	
West Thána ...	Do. ...	64,631	100 631	...	...	64,631	100 631		
East Thána ...	Do. ...	90,785	141 545	...	...	90,785	141 545		
West Násik ...	Násik ...	61,401	95 601	...	...	61,401	95 601		
	Total, Northern Circle.	520,349	813 29	...	31	520,318	812 638		
CENTRAL CIRCLE.									
Sátára	Sátára ...	658	1 18	...	...	658	1 18		
Poona	Ahmednagar.	7,139	11 99	...	...	7,139	11 99		
Kolába	Kolába ...	47,236	73 516	...	*7	47,229	73 509	*8065 / 5-8-1918, 9000 / 3-9-1918, 8999 / 3-9-1918, 7899 / 31-7-1918.	
	Total, Central Circle.	55,033	85 633	...	7	55,026	85 626		
SOUTHERN CIRCLE.									
Kánara, N. D. ...	Kánara and Dhárwár.	58	0 58	...	...	58	0 58		
Kánara, E D. ...	Do. ...	1,709	2 429	2	...	1,711	2 431	10038 / 8-10-1918.	
Kánara, C. D. ...	Kánara ...	32,564	50 564	3	...	32,567	50 567	10145 / 11-10-1918.	
Kánara, S. D. ...	Do. ...	42,035	65 435	1944	...	43,979	68 459	7978 / 2-8-1918.	
Kánara, W D. ...	Do. ...	9,028	14 68	...	...	9,028	14 68		
Belgaum	Belgaum ...	12	0 12	...	...	12	0 12		
Dhárwár-Bijápur...	Dhárwár and Bijápur.	.....	.....	...	..	...	...		
	Total, Southern Circle.	85,406	133 286	1,949	...	87,355	136 315		
SIND CIRCLE.									
Shikarpur... ...	Upper Sind Frontier.	585	0 585	...	...	585	0 585		
	Total, Sind Circle.	585	0 585	...	...	585	0 585		
	GRAND TOTAL, PRESIDENCY.	661,373	1,033 253	1,949	38	663,284	1,036 244		

FORM No. 7-B.—*Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1918-1919.*

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.			Sq.m. a.				Sq.m. a.		
Panch Mahals ...	Panch Mahals.	212,152	331 312	...	...	212,152	331 312		
Surat ...	Surat ...	463,507	724 147	...	...	463,507	724 147		
North Thána ...	Thána ...	221,549	346 109	(*a*) 144	(*b*) 10	221,683	346 243	*Vide* Form No. 7.	
West Thána ...	Do. ...	192,652	301 12	...	...	192,652	301 12		
East Thána ..	Do. ...	293,222	458 102	...	...	293,222	458 102		
West Násik ...	Násik ...	220,885	345 85	(*a*) 13	...	220,898	345 98	*Vide* Form No. 7.	
North Násik ...	Do. ..	316,166	494 6	...	...	316,166	494 6		
East Násik ...	Do. ...	165,130	258 10	...	...	165,130	258 10		
	Total, Northern Circle.	2,085,263	3,258 143	157	10	2,085,410	3,258 290		
CENTRAL CIRCLE.									
East Khándesh...	East Khándesh.	488,629	763 309	...	...	488,629	763 309		
West Khándesh.	West Khándesh.	381,579	596 139	*15,348	...	396,927	620 127	*As per form No. 7.	
North Khándesh.	North Khándesh.	556,196	869 36	*83	...	556,279	869 119	*As per Form No. 7.	
Poona ...	Poona ...	361,684	565 84	*15	...	361,699	565 99	*As per form No. 7. * Do.	
Sátára ..	Sátára ...	330,488	516 248	*285 **236	52	330,957	517 77	** Rectification of error.	
Kolába ...	Kolába ...	269,268	420 468	*1,731	...	269,268	423 279	*As per Form No. 7.	
SOUTHERN CIRCLE.	Total, Central Circle.	2,387,844	3,731 4	17,698	52	2,405,490	3,758 370		
Kánara, N. D....	Kánara and Dhárwár.	272,961	426 321	142	*37	273,066	426 426	10085 8-10-1918, 4079 23-4-1919,	Errors rectified.
Kánara, E. D....	Do. ...	377,045	589 85	(*a*) 2	(*b*) 2	377,045	589 85	4081 23-4-1919. (*a*) 10028	
Kánara, C. D.	Kánara ...	533,467	833 347	(*c*) 3	(*d*) 19	533,451	833 331	8-10-1918. (*b*) 8601 10127 22-8-1918; 8-10-1918. (*c*) 10145 11-10-1918. (*d*) 10144 10819 11-10-1918; 5-1-1918, 11336 1227 19-11-1918, 6-2-1919, 4221	
Kánara, S. D. ...	Do. ...	452,957	707 477	(*e*) 1,944	(*f*) 1,976	452,925	707 445	25-4-1919. (*e*) 7978 10578 2-8-1918, 28-10-1918. (*f*) 8060 11016 5-8-1918, 9-11-1918, 4222 7977	
Kánara, W. D....	Do. ...	530,165	828 245	...	11	530,154	828 234	25-4-1919, 2-8-1918. 10029 1099 8-10-1018, 1-2-919, 1941 3918	
Belgaum ...	Belgaum ...	434,928	679 368	(*g*) 534	(*h*) 27	435,435	680 235	24-2-1919, 16-4-1919. (*g*) 9868 9977 1-10-1918; 4-10-1918; 10818 10820 5-11-1918; 5-11-1918; 2886 1094 20-3-1919; 1-2-1919; 1098 1181 1-2-1919; 4-2-1919; 1182 2399 4-2-1919; 8-3-1919; 2857 20-3-1919. (*h*) 8647 11014 23-8-1918. 9-11-1918,	
Dhárwár and Bijapur.	Dhárwár and Bijápur.	219,314	342 434	(*i*) 186 * 4,057	(*j*) 167	223,390	349 30	20-3-1919. (*i*) 4082 4080 23-4-1919; 23-4-1919. (*j*) 6422 7365 11-6-1918, 15-7-1918, 9624 9988 23-9-1918. 5-10-1918, 522 3404-A 18-7-1919 1-4-1919, 5180 523 20-5-1919, 18-1-1919, 10547	
Ratnágiri ..	Ratnágiri ...	12,051	(*d*)18 531	...	*12,051	... ...	... ...	26-10-1918. 5205 304-11.	*Transferred to the Revenue Department from 1st July 1918.
	Total, Southern Circle.	2,832,888	4,426 248	6,868	14,290	2,825,466	4,414 506		

* Transferred from the management of the Revenue Department to that of the Forest Department as per Bijapur Collector's approval, 6th August 1917.

FORM No. 7-B.—*Area of Forest Proper, Reserved or Mixed Fuel and Fodder Reserves under the management of the Forest Department for 1918-1919*—continued.

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
SIND CIRCLE.		Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Sukkur ...	Sukkur and Upper Sind Frontier.	209,858	327 578	§ 4,486	* 955	213,389	333 269		* Lost by action of the river.
Shikárpur ...	Do. ...	117,229	183 109	...	+904 * 448	115,877	181 37		+ Disforested, *vide* Government Order No. 2909, dated 24th March 1919.
Lárkána ...	Lárkána and Nawábsháh.	112,091	175 91	§ 2,582	* 4,905	109,768	171 328		§ Gained by action of the river.
Hyderabad ...	Hyderabad, Nawábsháh and Karáchi.	160,253	250 253	§ 7,809	* 9,261	158,801	248 81		
Karáchi ...	Hyderabad and Karáchi.	142,918	223 198	§ 2,429	* 3,363	141,984	221 544		
	Total, Sind Circle.	742,349	1,159 589	17,306	19,836	739,819	1,155 619		
	GRAND TOTAL.	8,048,344	12,575 344	42,029	34,188	8,056,185	12,587 505		

FORM No. 7-C.—*Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department for 1918-1919.*

Division.	Civil District or Territory.	Area on 1st July 1918.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1919.		No. and date of Notification of addition or transfer.	Remarks.
		Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.		Acres.	Sq.m. a.	Acres.	Acres.	Acres.	Sq.m. a.		
Surat ...	Surat ...	8,092	12 412	...	...	8,092	12 412		
North Thána ...	Thána ...	95,133	148 413	...	31	95,102	148 382	*Vide* Form No. 7A.	
West Thána ...	Do. ...	56,825	88 505	...	...	56,852	88 505		
East Thána ...	Do. ...	91,058	142 178	...	...	91,058	142 178		
West Násik ...	Násik ...	65,102	101 462	...	...	65,102	101 462		
North Násik ...	Do. ...	15,764	24 404	...	...	15,764	24 404		
East Násik ...	Do. ...	24,449	38 129	...	...	24,449	38 129		
Ahmedabad ...	Ahmedabad.	12,032	18 512	...	...	12,032	18 512		
CENTRAL CIRCLE.	Total Northern Circle.	368,455	575 455	...	31	368,424	575 424		
East Khándesh ...	East Khándesh.	23,255	36 215	...	...	23,255	36 215		
West Khándesh ...	West Khándesh.	113,267	176 627	...	...	113,267	176 627		
Poona ...	Poona ...	291,679	455 479	...	*18,465	273,214	426 574	*As per Form No. 7.	
Sátára ...	Sátára ...	124,788	194 628	...	*65	124,723	194 563	Do.	
Kolába ...	Kolába ...	65,812	102 532	...	†7	65,805	102 525	† 8065 / 5-8-1918, 8999 / 2-9-1918, 9000 / 3-9-1918, 7899 / 31-7-1918.	
Nagar and Sholápur.	Nagar and Sholápur.	447,923	699 563	...	‡112	447,811	699 451	‡ As per Form No. 7.	
SOUTHERN CIRCLE.	Total Central Circle.	1,066,724	1,666 484	...	18,649	1,048,075	1,637 395		
Kánara, E. D. ...	Kánara and Dhárwár.	2,329	3 409	...	...	2,329	3 409		
Belgaum ...	Belgaum ...	1,677	2 397	...	...	1,677	2 397		
Dhárwár and Bijápur.	Dhárwár and Bijápur.	96,712	151 72	...	* 4,057	92,655	144 495		* Transferred to the management of the Forest Depatment as per Bijapur Collector's approval.
Ratnágiri ...	Ratnágiri ...	.....	...	†051	...	12,051	18 531	5205 / 30-4-1918.	† Transferred from the Forest Department from 1st July 1918.
	Total, Southern Circle.	1,00,718	157 238	12,051	4,057	108,712	169 552		
SIND CIRCLE.									
Karáchi ...	Karáchi Malir (Reserved).	24	0 24	...	...	24	0 24		
	Total Sind Circle.	24	0 24	...	...	24	0 24		
	Grand Total, Presidency.	1,535,921	2,399,561	12,051	22,737	1,525,235	2,383 115		

FORM

ABSTRACT OF FORMS NOS. 7, 7-A.

Division.	In charge of the Forest Department.				
	Reserved Forest.			Protected Forest.	
	Forest proper.	Pasture reserves.	Fuel and fodder reserves.	Forest proper.	Pasture reserves.
NORTHERN CIRCLE.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.
Panch Mahals ...	331 312	.....	...	...	.....
Surat ...	399 134	.....	...	325 13	.....
North Thána ...	343 446	.....	2 50	0 386	.....
West Thána ...	288 527	.....	...	12 125	.....
East Thána ...	458 102	.....	...	...	.....
West Násik ...	344 108	.....	0 630	...	.....
North Násik ...	494 6	.....	...	...	.....
East Násik ...	256 169	.....	1 481	...	.....
Ahmedabad ...	.....	.....	...	...	.....
Total ...	2,915 524	.....	4 521	337 524	.....
CENTRAL CIRCLE.					
East Khándesh ...	763 309	.....	...	...	.....
West Khándesh ...	489 100	.....	131 27	...	.....
North Khándesh ...	869 119	.....	...	...	.....
Poona ...	554 0	.....	...	11 99	.....
Sátára ...	516 59	.....	...	1 18	.....
Kolába ...	419 470	.....	3 449	...	.....
Ahmednagar and Sholápur ...	.....	.....	...	...	.....
Total ...	3,611 417	.....	134 476	12 117	.....
SOUTHERN CIRCLE.					
Kánara, Northern ...	424 409	1 576	0 23	0 58	.....
Kánara, Eastern ...	479 331	106 603	...	...	2 431
Kánara, Central ...	682 466	99 578	...	...	50 567
Kánara, Southern ...	382 434	256 192	...	68 459	.....
Kánara, Western ...	752 611	61 195	...	...	14 68
Belgaum ...	630 71	50 152	...	0 12	.....
Dhárwár and Bijápur ...	316 238	20 458	11 614	...	.....
Ratnágiri ...	.....	.....	...	...	.....
Total ...	3,669 0	597 194	11 637	68 529	67 426
SIND CIRCLE.					
Sukkur ...	333 269	.....	...	...	.....
Shikárpur ...	180 92	.....	...	0 585	.....
Lárkána ...	171 328	.....	...	...	.....
Hyderabad ...	248 81	.....	...	...	.....
Karáchi ...	221 544	.....	...	...	.....
Total ...	1,155 34	.....	...	0 585	.....
GRAND TOTAL ...	11,351 335	597 194	151 354	419 475	67 426

No. 7—D.

7-B *and* 7-C *for 1917-18.*

In charge of the Revenue Department.				Total Forest Area.	Remarks.
Reserved Forest.			Protected Forest.		
Forest proper.	Pasture reserves.	Fuel and fodder reserves.	Pasture reserves.		
Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
...	.....	...	...	331 312	
...	3 53	9 359	...	736 559	
...	.....	...	148 382	494 624	
...	.....	...	88 506	389 518	
0 273	.....	...	141 545	600 280	
...	4 212	1 289	95 601	446 560	
...	24 404	...	...	518 410	
...	38 129	...	...	296 139	
...	.....	18 512	...	18 512	
0 273	70 158	29 520	475 114	3,834 74	
...	36 215	...	...	799 524	
...	176 627	...	...	797 114	
...	.....	...	...	869 119	
...	426 574	...	...	992 33	
...	189 333	5 230	...	712 0	
...	29 16	...	73 509	526 164	
...	699 451	...	...	699 451	
...	1,553 296	5 230	73 509	5,396 125	
...	.....	...	...	426 426	
...	3 409	...	...	592 494	
...	.....	...	...	833 331	
...	.....	...	...	707 445	
...	.....	...	...	828 234	
1 0	.....	1 397	...	682 632	
...	144 495	...	...	493 525	
13 531	.....	5 0	...	18 531	
14 531	148 264	6 397	...	4,584 418	
...	.....	...	...	333 269	
...	.....	...	...	181 37	
...	.....	...	...	171 328	
...	.....	...	...	248 81	
...	0 24	...	...	221 568	
...	0 24	...	...	1,156 3	
15 164	1,777 102	41 507	548 623	14,970 620	

FORM No. 8.—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
NORTHERN CIRCLE.					
Reserved Forest.					
North Thána ...	Thána ..	Chikhla ...	31/640	.....	.....
		Gholwad ...	11/640	.....	.....
		Umbergaon ...	31/640	.....	.....
		Deheri ...	12/640	.....	.....
		Nargol ...	44/640	.....	.....
		Agashi ...	15/640	.....	.....
West Násik ...	Násik	Anjaneri ...	10/640	.....	.....
		Dehri ...	3/640	.....	.....
North Násik ...	Do.	Agharkhurd ...	.....	12/640	.....
		Jamshet ...	.....	6/640	.....
		Jamboti ...	.....	34/640	.....
		Palasdar ...	.....	.....	7/640
East Násik ...	Do.	Sinnar ...	.....	18/640	.....
Protected forest ...	.....	.....	.....	.....	.....
	Total, Northern Circle.	.....	157/640	70/640	7/640

Settlements during the year 1918-1919.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....			
.....	.....	.....			
.....	.....	.....	5091	25th April 1918.	
.....	.....	.....			
.....	.....	.....			
.....	.....	.....	9485	19th Sept. 1918.	
.....	.....	.....	3405	1st April 1919.	
.....	.....	.....	3616	7th April 1919.	
.....	.....	.....	15024	11th Decr. 1917.	
.....	.....	.....	2343	8th March 1918.	
.....	.....	.....	5162	29th April 1918.	
.....	.....	.....	5634	2nd June 1919.	
.....	.....	.....	9376	1st August 1917.	
.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest*

Forest Division.	Civil District or Territory.	Name of Forest.	AREA IN SQUARE MILES.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
CENTRAL CIRCLE. *Reserved Forest.*					
West Khándesh ...	West Khándesh ...	Pimple	740/640	.....	.....
		Umarvihir, etc., 20 villages.	14609/640	.....	.....
		Naoli, Kholvihir etc., 39 villages.	.....	1 290/640	.....
		Hingune	.....	.....	22/640
North Khándesh ..	Do. ...	Nagzari	82/640	77/640	.....
Poona	Poona	Chandus			
		Tokavde	15/640	.....	41/640
		Vadgaon			
Sátára	Sátára	.....	285/640	76/640	26/640
Kolába	Kolába	Apata Korhala Gharawadi Saidapur.	.....	...	2 433/640
	Total, Central Circle ...	.....	24371/640	1 443/640	2 522/640

Settlements during the year 1918-1919 —continued.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.		Remarks.
In Forest Accounts.	In other Accounts.		No.	Date.	
7	8	9	10	11	12
Rs.	Rs.	Rs.			
.....	.....	.....	11346	19th Nov. 1918.	
.....	.....	.....	.....	.....	
.....	.....	.....	7186	9th July 1918.	
.....	.....	.....	3403	1st April 1919.	
.....	.....	.....	1228	6th February 1919.	
.....	.....	.....	2398 9181 7879	8th March 1919. 10th Sept. 1918. 30th July 1918.	
.....	.....	.....	5692 7852 1095 1096 1097 8282 8648	4th June 1918. 29th July 1918. 1st February 1919. Do. Do. 12th August 1918. 23rd August 1918.	
.....	.....	.....	7621	25th July 1918.	
.....	.....	.....	.....	.....	

FORM No. 8—*Progress made in Forest Settlements*

Forest Division.	Civil District or Territory.	Name of Forest.	Area in square miles.		
			Finally settled during the year.	In hand at commencement of the year.	Taken in hand during the year.
1	2	3	4	5	6
SOUTHERN CIRCLE.					
Reserved Forest.					
Kánara, Northern...	Kánara and Dhárwár ...	Reserved Forest ...	$\frac{142}{640}$	.....	$\frac{203}{640}$
Do. Eastern ...	Do. ..	Do. ...	.....	.....	$\frac{54}{640}$
Do. Southern...	Kánara ...	Do. ...	.....	.....	$\frac{1}{640}$
Do. Western ...	Do. ...	Do. ...	.....	.....	.....
Belgaum	Belgaum ...	Do. ...	$\frac{534}{640}$	.....	$\frac{102}{640}$
Dhárwár and Bijápur.	Dhárwár and Bijápur ...	Do. ...	$\frac{186}{640}$	.....	$\frac{448}{640}$
	Total, Reserved Forest ...	.....	1 $\frac{222}{640}$	.....	1 $\frac{168}{640}$
Protected Forest.					
Kánara, Eastern ...	Kánara and Dhárwár ...	Protected Forest ...	$\frac{2}{640}$	.....	.....
Do. Central ...	Kánara ...	Do. ...	$\frac{3}{640}$	.....	.....
Do. Southern ...	Do. ...	Do. ...	$\frac{1944}{640}$	.....	.....
	Total, Protected Forest ...	.....	3 $\frac{29}{640}$	.....	.....
	Total, Southern Circle ...	.....	4 $\frac{251}{640}$	.....	1 $\frac{168}{640}$
	Sind Circle ...	.....	...	.....	.....
	Total, for the Presidency (Reserved),	.....	26 $\frac{110}{640}$	1 $\frac{513}{640}$	4 $\frac{57}{640}$
	Total, for the Presidency (Protected).	.....	3 $\frac{29}{640}$	.....	.....
	Grand Total Presidency...	.....	29 $\frac{139}{640}$	1 $\frac{513}{640}$	4 $\frac{57}{640}$

during the year 1918-1919—continued.

Cost during the year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement, Number and Date.		Remarks.
In Forest Accounts.	In other Accounts.				
7	8	9	10	11	12
Rs.	Rs.	Rs.	19§	4§	
30	...	...	10035/8-10-18 ; 4079/23-4-19 ; 4081/23-4-19 ;	7456/17-7-19 ; 10096/9-10-18 ; 5181/20-5-19 ;	
36	...	...		7236/9-7-18 ; 9447/18-9-18 ;	
...	...	...	10578/28-10-18	11015/9-11-18	
174	...	...			
1	...	...	9863/1-10-18 ; 9977/4-10-18 ; 10818/5-11-18 ; 10820/5-11-18 ; 2286/20-3-19 ; 1094/1-2-19 ; 1098/1-2-19 ; 1181/4-2-19 ; 1182/4-2-19 ; 2399/8-3-19 ; 2887/20-3-19	11995/5-12-18 ; 623/21-1-19 ; 4071/22-4-19 ; 5633/2-6-19 ;	
41	...	...	4082/23-4-19 ; 4080/23-4-19 ;	6929/2-7-18 ; 7946/1-8-18 ; 9026/3-9-18 ; 9484/19-9-18 ; 3404/1-4-19 ; 7456/17-7-18 ;	
282	...	...			
...	...	...	10028/8-10-18		
...	...	...	10145/11-10-18		
...	...	...	7978/2-8-18		
...	...	...			
...	...	..			
...	..	...			
282	...	...			
...	...	...			
282	..	...			

FORM No. 9.—*Record of Demarcation and Maintenance of Boundaries, 1918-1919.*

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Panch Mahâls ...	.....	959	.....	959	.....	101	1,060	.....	5 0 0	
Surat ...	.....	895	.....	895	.....	103	998	.....	49 0 0	
North Thâna ...	.....	911	.....	911	.....	34	945	.....	673 0 0	
West Thâna ...	.....	736	.....	736	.....	32	768	.....	416 0 0	
East Thâna ...	.....	1,393	.....	1,393	39	141	1,573	.....	117 0 0	
West Násik ...	.....	1,538	.....	1,538	64	193	1,795	.....	469 0 0	
North Násik ...	.....	1,245	.....	1,245	1	73	1,319	.....	122 0 0	
East Násik ...	.....	717	.....	717	.....	59	776	.....	129 0 0	
Total, Northern Circle ...	.....	8,334	.....	8,334	104	736	9,174	.....	1,980 0 0	
CENTRAL CIRCLE.										
East Khándesh ...	.....	2,183	.....	2,183	.....	107	2,290	.....	95 0 0	
West Khándesh ...	.....	843	.....	843	.....	67	910	.....	317 0 0	
North Khándesh ...	.....	309	.....	309	.....	52	361	.....	220 0 0	
Poona ...	12	3,320	.....	3,332	4	451	3,787	380 0 0	375 0 0	
Sátára ...	1	709	3,544	4,254	.....	80	4,334	15 0 0	213 0 0	
Kolába ...	.....	1,989	.....	1,989	.....	72	2,061	.....	328 0 0	
Total, Central Circle ...	13	9,353	3,544	12,910	4	829	13,743	395 0 0	1,548 0 0	
SOUTHERN CIRCLE.										
Kánara, Northern ...	.....	.....	624	624	.....	14	638	.....	.....	
Do. Eastern ...	.....	60	1,503	1,563	.....	31	1,594	.....	870 0 0	
Do. Central ...	.....	38	3,796	3,834	.....	108	3,942	.....	9 0 0	

FORM No. 9.—*Record of Demarcation and Maintenance of Boundaries, 1918-1919*—concluded.

Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries still to be demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE—*concluded.*	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
Kánara, Southern ...	13	11	4,415	4,439	.....	100	4,589	.....	23 0 0	
Do. Western ...	.....	45	1,793	1,838	22	152	2,012	.....	180 0 0	
Belgaum	11	30*	1,896	1,937*	87	141	2,165	107 0 0	300 0 0	*Includes 23 miles boundary in Gujnal Range taken over from the Revenue Department.
Dhárwár—Bijápur .	.....	867*	505	1,372*	8	32	1,412	.....	475 0 0	*Includes 116 miles in the Kod and Hangal Ranges taken over from the Revenue Department.
Total, Southern Circle	24	1,051	14,532	15,607	117	578	16,302	107 0 0	1,857 0 0	
SIND CIRCLE.										
Sukkur	5	645	.....	650	.....	130	780	.....	.....	
Shikarpur	.....	388	.....	388	.....	57	445	.....	.....	
Lárkána	6	383	.....	389	.....	78	467	.....	.....	
Hyderabad	.....	352	.....	352	.....	196	548	.....	.....	
Karachi	1	250	.....	251	.....	228	479	.....	.....	
Total, Sind Circle ...	12	2,018	.....	2,030	.....	689	2,719	.....	.....	
GRAND TOTAL ...	49	20,756	18,076	38,881	225	2,832	41,938	502 0 0	5,385 0 0	

FORM No. 10.—*Statement of Forest Areas Surveyed and*

Division.	AREAS SURVEYED AND UNDER SURVEY															
	SPECIAL SURVEYS—MAPS ON 4″ SCALE OR OVER, BY SURVEY OF INDIA DEPARTMENT OF FOREST SURVEY BRANCH.								ORDINARY, INCLUDED IN DISTRICT SURVEYS.							
	With Interior Details.					Boundary Surveys.			With Interior Details.					Boundary Surveys.		
	With details of Growing Stock.		Without details of Growing Stock.		Total cost.	Previous.	Of the year.	Total Cost.	With details of Growing Stock.		Without details of Growing Stock.		Total Cost.	Previous.	Of the year.	Total Cost.
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs. a. p.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.
Reserved Forest.																
Panch Mahâls																
Surat																
North Thána																
West Thána																
East Thána																
West Násik																
North Násik																
East Nasik																
Ahmedabad																
Total																
Protected Forest.																
Surat																
North Thána																
West Thána																
East Thána																
West Násik																
Total																
Total, Northern Circle																
CENTRAL CIRCLE.																
Reserved Forest.																
East Khándesh																
West Khándesh																
North Khándesh																
Poona																
Sátára																
Kolába																
Nagar & Sholápur																
Total																
Protected Forest.																
Poona																
Sátára																
Kolába																
Total																
Total, Central Circle																
SOUTHERN CIRCLE.																
Reserved Forest.																
Kánara, Northern																
Do. Eastern																
Do. Central																
Do. Southern																
Do. Western																
Belgaum																
Dhárwár-Bijápur																
Ratnágiri																
Total																
Protected Forest.																
Kánara Northern																
Do. Eastern																
Do. Central																
Do. Southern																
Do. Western																
Belgaum																
Dhárwár-Bijápur																
Total																
Total, Southern Circle																
SIND CIRCLE.																
Reserved Forest.																
Sukkur																
Shikarpur																
Lárkána																
Hyderabad																
Karachi																
Protected Forest.																
Shikarpur																
Total, Sind Circle																
GRAND TOTAL, PRESIDENCY																

under Survey during the year 1918-1919.

DURING THE YEAR.										COST.			
CHAIN AND COMPASS OR OTHER SURVEYS BY LOCAL OFFICERS.								Areas remaining to be taken under Survey.	Total Forest area at end of the year as per Forms Nos. 7 & 7A.	Previous.	Of the year.	Entire cost of all Surveys to end of the year.	Remarks.
With Interior Details.					Boundary Surveys.								
4-inch or over.		Under 4-inch.		Total Cost.	Previous.	Of the year.	Total Cost.						
Previous.	Of the year.	Previous.	Of the year.										
18	19	20	21	22	23	24	25	26	27	28	29	30	31
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	...	...	...	...	...	...	...	...	332	.....	.....	.....	Not available.
...	...	...	...	...	...	...	...	...	412	2,509 0 0	.....	2,509 0 0	
...	...	...	...	...	...	...	...	...	345				
...	...	...	...	...	...	...	...	...	289	1,27,563 0 0	.....	1,27,563 0 0	
...	...	...	...	...	...	...	...	...	458				
...	...	...	...	...	...	...	...	...	351				
...	...	...	...	...	...	...	...	...	519	1,11,290 0 0	.....	1,11,290 0 0	
...	...	...	...	...	...	...	...	...	296				
...	...	...	...	...	...	...	...	...	19	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3,021	2,41,362 0 0	.....	2,41,362 0 0	
...	...	...	...	...	...	...	...	...	325	.....	.....	.....	
...	...	...	...	...	...	...	...	...	149	.....	.....	.....	
...	...	...	...	...	...	...	...	...	101	.....	.....	.....	
...	...	...	...	...	...	...	...	...	142	.....	.....	.....	
...	...	...	...	...	...	...	...	...	96	.....	.....	.....	
...	...	...	...	...	...	...	...	...	813	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3,834	2,41,362 0 0	.....	2,41,362 0 0	
...	...	...	...	...	...	...	...	...	800	24,084 0 0	.....	24,084 0 0	
...	...	...	...	...	...	...	...	...	797	63,694 0 0	.....	63,694 0 0	
...	...	...	...	...	...	...	...	...	869	1,371 0 0	.....	1,371 0 0	
...	...	...	...	...	...	...	...	...	981	1,11,290 0 0	.....	1,11,290 0 0	
...	...	...	...	...	...	...	...	...	711	62,569 0 0	.....	62,569 0 0	
...	...	...	...	...	...	...	...	...	453	.....	.....	.....	
...	...	...	...	...	...	...	...	...	699	91,230 0 0	.....	91,230 0 0	Not known.
...	...	...	...	...	...	...	...	...	5,310	3,54,238 0 0 *7,085 0 0	.....	3,54,238 0 0 *7,085 0 0	
...	...	...	...	...	...	...	...	...	11	.....	.....	.....	
...	...	...	...	...	...	...	...	...	1	.....	.....	.....	
...	...	...	...	...	...	...	...	...	74	.....	.....	.....	
...	...	...	...	...	...	...	...	...	86	.....	.....	.....	
...	...	...	...	...	...	...	...	...	5,396	3,61,323 0 0	.....	3,61,323 0 0	
...	...	...	...	...	...	...	...	...	427				
...	...	...	...	...	...	...	...	...	590				
...	...	...	...	...	...	...	...	...	782	3,90,231 0 0	.....	3,90,231 0 0	
...	...	...	...	...	...	...	...	...	639				
...	...	...	...	...	...	...	...	...	814				
...	...	...	...	...	...	...	...	...	683	57,104 0 0	.....	57,104 0 0	
...	...	...	...	...	...	...	...	...	494	15,268 0 0	.....	15,268 0 0	
...	...	...	...	...	...	...	...	...	19	581 0 0	.....	581 0 0	
...	...	...	...	...	...	...	...	...	4,448	4,63,184 0 0	.....	4,63,184 0 0	
...	...	...	...	...	...	...	...	...	...	.....	.....	.....	
...	...	...	...	...	...	...	...	...	3	.....	.....	.....	
...	...	...	...	...	...	...	...	...	51	.....	.....	.....	
...	...	...	...	...	...	...	...	...	69	.....	.....	.....	
...	...	...	...	...	...	...	...	...	14	.....	.....	.....	
...	...	...	...	...	...	...	...	...	...	.....	.....	.....	
...	...	...	...	...	...	...	...	...	..	.....	.....	.....	
...	...	...	...	...	...	...	...	...	137	.....	.....	.....	
...	...	...	...	...	...	...	...	..	4,585	4,63,184 0 0	.....	4,63,184 0 0	
...	...	...	...	...	...	...	...	...	333	.....	.....	.....	
...	...	...	...	...	...	...	...	...	181	.....	.....	.....	
...	...	...	...	...	...	...	...	...	171	.....	.....	.....	
...	...	...	...	...	...	...	...	...	248	.....	.....	.....	
...	...	...	...	...	...	...	...	...	222	.....	.....	.....	
...	...	...	...	...	...	...	...	...	1	.....	.....	.....	
...	...	...	...	...	...	...	...	...	1,156	.....	.....	.....	
...	...	...	...	...	...	...	...	...	14,971	10,65,869 0 0	.....	10,65,869 0 0	

NOTE.—No expenditure was incurred in topographical Surveys of any tracts in Sind upto 1918-19 *vide* letter No. 5387—34—22 of 22nd August 1919 rom Superintendent, Northern Circle.

* Represents cost of arrear mapping and cannot conveniently be distributed amongst the several Divisions including South and North Násik.

FORM No. 11.—*Progress made in Working Plans, during the year 1918-1919.*

Division.	Area under sanctioned Working Plans.					Area not under Working Plans.			Total forest area in Form No. 7-B, column 8.	Revision.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of the year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of the year.	Revised Plans sanctioned during the year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
NORTHERN CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Per ct.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
Reserved Forest.														
Panch Mahals ...	332	...	...	332	100	...	...	...	332	218	114	...	.....	
Surat ...	279	...	...	279	65·9	...	120	...	399	68	...	...	.....	
North Thána ...	345	...	...	345	100	...	...	...	345	...	345	...	.....	
West Thána ...	289	...	...	289	100	...	...	...	289	...	289	...	.....	
East Thána ...	458	...	...	458	100	...	...	...	458	84	374	...	.....	
West Násik ...	320	...	...	320	92·7	25	...	...	345	320	...	...	.....	
North Násik ...	400	...	...	400	80·9	...	...	94	494	400	...	...	.....	
East Násik ...	179	...	...	179	69·	...	...	79	258	179	...	...	.....	
Total ...	2,602	...	...	2,602	89·1	25	120	173	2,920	1,269	1,122	...	.....	
Protected Forest.														
North Thána ...	...	...	...	...	...	...	1	...	1	...	...	...	.....	
West Thána ...	...	...	...	...	...	...	12	...	12	...	...	...	.....	
Total ...	...	...	...	...	...	...	13	...	13	...	...	...	.....	
Leased Forests.														
Surat (Protected) ...	178	...	...	178	54·7	...	147	...	325	...	...	...	.....	
Total, Northern Circle .	2,780	...	...	2,780	85·3	25	280	173	3,258	1,269	1,122	...	.....	

FORM NO. 11—*Progress made in Working Plans, 1918-1919*—concluded.

Division.	Area under sanctioned Working Plans.					Area not under Working Plans.			Total forest area in Form No. 7. Total of Columns 5, 7, 8 and 9.	Revision.			Expenditure on Working Plans during the year.	Remarks.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of the year.		Plans under preparation.	Plans not under preparation.			Due or required.	In progress at end of the year.	Revised plans sanctioned during the year.		
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CENTRAL CIRCLE.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
East Khándesh ...	749	...	...	749	98*	...	...	15	764	...	*409	...	.....	* Chopda, Raver and Yawal forests.
West Khándesh ...	180	...	...	180	29†	...	441†	...	621	...	...	...	.....	†Teak Forest ... Sq. m. 175 Scrub ,, ... 265 440
North Khándesh ...	564	...	...	564	64·9	305*	...	...	69	...	564§	...	.....	‡ Akrani ... Sq. m. 304 Shirpur (newly afforested area) ... 1 305 § Shirpur, Shahada and Taloda.
Kolába ...	419	...	...	419	99·1	...	...	4	423	...	3†	...	.....	†Matheran ... Sq. m. 1·7 Kolaba working plan ... 1·3 3
Poona ...	320	...	...	320	57·8	234	...	...	554	...	320	...	.....	
Sátára ...	64	...	...	64	12·4	97	354†	...	515	64	...	...	.....	††Evergreen forest of Mahabaleshwar part, Patan and Shirala, etc.
Total ...	2,296	...	...	2,296	61·3	636	795	19	3,746	64	1,296	...	.....	
Protected Forest.														
Poona ...	...	...	...	...	...	11	...	...	11	...	...	...	.....	
Satara ...	...	...	...	...	...	...	1	...	1	...	...	...	.....	
Total ...	...	...	...	...	...	11	1	...	12	...	...	...	.....	
Leased Forest.														
Sátára ...	...	...	...	...	...	...	1	...	1	...	...	...	.....	
Total ...	...	...	...	...	...	...	1	...	1	...	...	...	.....	
Total, Central Circle...	2,296	...	...	2,296	61·1	647	797	19	3,759	64	1,296	...	.....	
SOUTHERN CIRCLE.														
Kánara, Northern ...	350	66	...	416	97·4	...	...	11	427	10	107	...	.....	
Kánara, Eastern ...	277	55·5	...	332·5	56·6	22·5	...	231	586	157	157	...	.....	
Kánara, Central ...	278	...	...	278	35·5	1	104	4·0	783	...	...	27·88	.....	
Kánara, Southern ...	71	...	...	71	11·	97	...	472	640	...	...	...	.....	
Kánara, Western ...	253	...	...	253	3·6	...	...	556	814	...	...	...	.....	
Belgaum ...	331	...	...	331	48·6	348	...	1	680	168	168	...	.....	
Dhárwár-Bijápur ...	...	...	...	...	...	132	103	14	349	...	...	...	.....	
Total ...	1,565	121·5	...	1,686·5	39·4	700·5	207	1,685	4,279	432	432	27·88	.....	
Protected Forest.														
Kánara, Eastern ...	...	...	...	...	...	...	...	3	3	...	...	...	.....	
Kánara, Central ...	...	...	...	...	...	...	...	51	51	...	...	...	.....	
Kánara, Southern ...	...	...	...	...	...	...	...	68	68	...	...	...	.....	
Kánara, Western ...	...	...	...	...	...	...	...	14	14	...	...	...	.....	
Total ...	...	...	...	...	...	...	...	136	136	...	...	...	.....	
Total, Southern Circle .	1,565	121·5	...	1,686·5	38·2	700·5	207	1,821	4,415	432	432	27·88	.....	
SIND CIRCLE.														
Sukkur ...	300	...	...	300	90·	13	...	20	333	...	...	...	.....	
Shikarpur ...	169	...	2	167	92·7	...	...	13	180	...	...	...	.....	
Lárkána ...	153	...	...	153	88·9	...	4	15	172	...	...	...	.....	
Hyderabad ...	236	...	...	236	95·1	...	...	12	248	...	...	...	.....	
Káráchi ...	228	...	6	222	100·0	...	...	...	222	...	...	...	.....	
Total ...	1,086	...	8	1,078	93·3	13	4	60	1,155	...	...	...	.....	
Shikarpur ...	1	...	...	1	...	...	...	...	1	...	...	...	.....	
Total, Sind Circle ...	1,087	...	8	1,079	93·3	13	4	60	1,156	...	...	...	...	
GRAND TOTAL ...	7,728	121·5	8	7,841·5	62·4	1,385·5	1,299	2,072	12,584	1,765	2,850	27·88	.....	

FORM No. 11-A—*Abstract of Control Books for Working Plans for the year 1918-19.*

Division.	Name of Working Plan.	Year in which sanctioned.	Area upto-date.		Brief statement of reasons for arrears.
			To be worked.	Actually worked.	
1	2	3	4	5	
				Acres.	
Panch Mahals — ...	Godhra	1893 and modified in 1905.	55,890	54,647	Certain inaccessible coupes.
	Halol	1906	9,094	7,406	Do.
	Kalol	1905	8,473	7,405	Do.
	Dohad	1901, modified in 1910 and under revision from 1916.	2,917	2,679	Clear cutting system. Certain unsaleable coupes on account of the growth in them being poor.
	Jhalod		1,681	1,009	
Surat	Mandvi	1910	9,123	8,900	Three coupes remained unsold prices received being very low.
	Bulsar	1900	1,576	1,547	Two coupes remained unsold one for boundary dispute and the other for price received being low.
	North Dangs	1914	15,171	8,915	Two coupes are in-arrears. Owing to Influenza and grass operations it was impossible to increase the rate of exploitation.
	South Dangs	1916	8,742	8,742	
North Thána	Thána clear cutting	Not yet sanctioned but introduced from 1917-1918.	5,593	5,533	One coupe containing poor growth remained unsold.
West Thána	Do.		4,482	4,236	4 coupes of Pole Felling series remained unsold.
	Kandivli Fuel Plan	1899	22	22	
	Tulsi Do.	1899	67	67	
East Thána	Thána clear cutting	Not yet sanctioned but introduced from 1917-1918.	5,316	4,636	Certain unsaleable coupes.
	Igatpuri coppice with standard ...	1912	9,750	5,282	Do.
West Násik	Nasik	1905	7,872	2,485	There was no demand for the below ghat coupes, hence they remained unsold.
	Dindori	.....	21,556	14,426	Certain about ghat coupes being poorly stocked had no demand.
	Peint	.....	45,250	39,011	Certain coupes remained unsold being inaccessible.
	Ase (Mokhada Working Plan)	.....	3,932	160	Coupes had no demand for want of communication, hence not laid out.
	Talasari (do.)	.....	3,265	160	
North Násik	Malegaon (Anjan Working Plan) ...	1905	24,744	19,034	(i) Coupes which were practically blank had no offers and could not be worked departmentally at a profit. (ii) Scrub block coupes had no offers and were left un-worked.
	Baglan (Teak Do.) ...	.....	20,581	8,002	
	Do. (Scrub Do.) ...	.....	11,185	4,662	
	Kalwan (Teak Do.) ...	.....	20,919	14,189	
	Do. (Scrub Do.) ...	.....	44,604	1,719	
East Násik	Chandwad	1906	6,380	2,635	Forest being of poor quality offers were not received for certain coupes.
	Sinnar	1912	654	432	
	Kopargaon	1900	1,722	1,704	

FORM No. 11-A—*Abstract of Control Books for working Plans for the year 1918-19*—continued.

Division.	Name of Working Plan.	Year in which sanctioned.	Area up to date.		Brief statement of reasons for arrears.
			To be Worked.	Actually worked.	
1	2	3	4	5	6
CENTRAL CIRCLE.			Acres.	Acres.	
North Khándesh	Satpuda Working Plan:—	1918—19	.....	.....	
	Anjan series	.....	418	418	
	Fuel series	.....	2,111	2,111	
	Teak pole series	.....	5,149	4,525	Poorly stocked.
	Old timber ,, ...	.....	10,210	10,210	
West Khándesh	Anjan Working Plan	1914—15	8,703	8,703	
	Deomogra Teak Working Plan ...	1904—05	9,991½	9,991½	
	Umarpata Teak Working Plan ...	1903—04	8,758	6,649	Due to want of water, labour and insufficiency of carts.
East Khándesh	Chopda, Yawal Raver (Satpura) ...	1918—19	7,081	2,537	Some were poorly stocked, in others there were no roads to remove the material economically.
	Satmala and mixed forest of Chalisgaon ...	1914	684	628	
	Anjan and Scrub forest of Edlabad ...	1909	1,196	1,119	
	Transpurna Babul of Edlabad	1915	108	108	
	Jammer Bhusavai Edlabad	1905	55	55	
	Khotali Babul Provisional Working Plan ...	.....	5	5	
Sátára	Mahabaleshwar Plateau forest	1909—10	4,121	3,666½	Inaccessible to carriage.
	Karad, Patan and Shirala teak forest ...	1907—08	8,891	7,819½	Arrears due to poor growth in certain coupes.
Kolába	Matheran Plateau Working Plan ...	1908	627½	566½	With-holding of cutting operations in 3 compartments and stopping that in one as it was covered with bungalows.
	Teak Working Plan	1907	49,345½	42,766¼	Some sold but not worked out; some did not sell owing to immature growth in them.
Poona	Poona teak Working Plan	1903	33,671	23,069	Some were poorly stocked and others were inaccessible.
	Poona Babul Working Plan	1902	6,365	5,882	
	Mulshi Working Plan	1915	525	525	
	Sub-ghat mixed Working Plan	1915	225	225	
	Lonavla and Khandala Working Plan ...	1908	2,455	1,522	Do.
	Ahmadnagar teak Working Plan ...	1905	23,710	5,469	

FORM No. 11-A—*Abstract of Control Books for Working Plans for the year 1918-19.*

Division.	Name of Working Plan.	Year in which sanctioned.	Area up to date		Brief statement of reasons for arrears.
			to be worked.	Actually worked.	
1	2	3	4	5	6
SOUTHERN CIRCLE.			Acres.	Acres.	
Kánara, Northern	Supa High Forest Plan, Blocks I to VII ...	1895	129,589	128,726	Due to no contractor having been found for working of 10-S. I.
	Bhagwati Plan, Blocks VIII, IX and XX ..	1916	7,849	4,747	Due to compartments 1, 2 and 3 of series IX having been sold.
	Haliyál Teak Pole Plan	1904	11,436	11,370	C-16 of Block II having remained unsold.
	Plan for Block VII-A	1915	198	198	
	Dhárwár Plan	1900	12,390	12,390	
	Kalghatgi Plan	1919	1,376	1,285*	* C—2 of Block VII having remained unsold
Do. Eastern	Yellápur Slopes Plan	1905	2,340	2,340	Not yet sold.
	Yellápur Aboveghat Plan	1905	75,278	58,954	Shortage of labour.
	Mundgod High Forest Plan	1908	25,193	17,389	Do
	Mundgod Teak Pole Area Plan	1909	8,443	8,443	
	Kirvatti Teak Pole Plan	1916	698 coupes 1,944 Improvement fellings.	698 890	
	Bankapur Hangal Plan	1919	2,482	1,992	Shortage of labour.
	Kalghatgi Plan	1919	510	765	
Do. Central	Ankola High Forest Plan	1910	11,371	8,708†	† Previous contract had to be extended hence work which ought to have been done in next fellings are behind hand many blocks are inaccessible and in other blocks coupes are bare and purely evergreen.
	Ankola Kumta Coast Fuel Plan	1912	4,404	2,676	Coupes are sold according to requirments for supply of fuel to Sirsi Town.
	Sirsi Fuel Plan	1914	826	156	No demand beyond one coupe per year contractor put on to special war work hence this work is neglected.
	Yekambi-Sonda High Forest Plan ...	1915	8,300	6,650	
	Arbail Slopes Plan	1918	1,277‡	.....	‡ To be worked in 1918-19 and 1919-20 Prescription of plan not received in time to get compartments marked 723 acres have been worked in compartment 11 which is excluded form the plans for certain reasons, Compartments 9 and 10 in Block XXVIII were not undertaken in this compartment but others more immediately suitable were taken in hand.
Do. Southern	Honáwar Tali Palm Plan	1909	9,468	9,468	
	Kasarkod Casuarina Plantation	1911	79	93	Over cut for supply to munitions.
	Soppin-hosalli High Forest Plan ...	1913	4,200	3,154	Shortage of labour.
	Chandawar Fuel Plan	1915	908	908	
Do. Western	Gund Plan	1896	25,501	9,652	Stortage of labour and want of communication.
	Kalinadi Slopes Plan	1911	5,741	5,173	Do.
	Supa Fuel Plan	1906	10,638	4,924	Do.
	Kárwár Fuel Plan	1903	14,124	10,904	
	Casuarina Plantations Plan	1911	55	55	
	Teak Plantations Plan	1910	713	713	
	Kadra, Mardi and Sulgeri Teak Plantations...				
Belgaum	Golihalli-Godoli Plan	1900	4,235	4,235	
	Khánápur Fuel Reserves	1903	37,977	33,302	
	Varkhad Hemadge Plan	1906	1,506	1,456	Difficulty in procuring sufficient labour and transport.
	Nagargali Plan	1915	1,544	1,634	
	Gokák Fuel Plan	1916	23,751	23,367	
SIND CIRCLE.					
Sukkur	Sukkur Plan (under revision)	.....	4,760	4,594	
Shikarpur	Shikarpur do.	.....	3,296	3,299	* The difference of 3 acres is due to actual measurement.
Larkana	Larkana do.	.....	4,529	4,322	
Hyderabad	Hyderabad Plan	1917	10,690	9,855	
Karáchi	Karachi Plan	1916	16,557	16,079	

FORM No. 12.

FORM No. 12.—*Statement showing communications*

Division.	New works undertaken during the year.													
	Buildings.					Roads and paths.							Other works.	
	Expenditure on				Total expenditure incurred.	Cart roads.		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.	Total expenditure on new Works.
	Head quarter houses.	Rest-houses.	Houses for subordinate establishment.	Others.		Length.	Cost.	Length.	Cost.	Length.	Cost.				
1	2(*a*)	2(*b*)	2(*c*)	2(*d*)	3	4(*a*)	4(*b*)	4(*c*)	4(*d*)	4(*e*)	4(*f*)	5	6	7	8
NORTHERN CIRCLE.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a p.	Miles	Rs. a. p.	Rs. a. p.	Rs. a. p
Direction	...	...	...	*250 0 0	250 0 0	...	...	...	...	...	...	...	...	...	250 0 0
Panch Mahâls ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Surat ...	3,484 0 0	2,650 0 0	1,218 0 0	724 0 0	8,076 0 0	15½	9,596 0 0	....	...	...	...	15½	9,596 0 0	334 0 0	18,006 0 0
North Thâna ...	...	...	24,136 0 0	†697 0 0	24,833 0 0	7⅔	16,575 0 0	...	...	...	...	7⅔	16,575 0 0	1,817 0 0	43,225 0 0
West Thâna ...	...	...	2,524 0 0	‡1,350 0 0	3,874 0 0	4½	2,088 0 0	...	...	...	...	4½	2,088 0 0	...	5,962 0 0
East Thâna ...	...	...	14,447 0 0	...	14,447 0 0	6½	6,017 0 0	...	...	...	...	6½	6,017 0 0	563 0 0	21,027 0 0
West Násik	...	873 0 0	10,461 0 0	1,180 0 0	12,514 0 0	18½	3,858 0 0	...	...	...	...	18½	3,858 0 0	148 0 0	16,520 0 0
North Násik ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
East Násik	...	...	275 0 0	...	275 0 0	...	...	...	...	...	...	...	...	...	275 0 0
Total, Northern Circle ...	3,484 0 0	3,523 0 0	53,061 0 0	4,201 0 0	64,269 0 0	52	38,134 0 0	...	...	...	...	52	38,134 0 0	2,862 0 0	1,05,265 0 0
CENTRAL CIRCLE.															
East Khándesh ...	...	...	322 0 0	...	322 0 0	...	...	...	...	...	...	...	...	878 0 0	1,200 0 0
West Khándesh ...	...	...	1,838 0 0	...	1,838 0 0	...	...	...	...	...	...	...	...	631 0 0	2,469 0 0
North Khándesh ...	...	2,386 0 0	1,408 0 0	...	3,794 0 0	20	3,821 0 0	...	...	...	...	20	3,821 0 0	435 0 0	8,050 0 0
Poona ...	...	...	2,456 0 0	...	2,456 0 0	1	470 0 0	...	...	...	...	1	470 0 0	...	2,926 0 0
Sátára ...	...	...	33 0 0	154 0 0	187 0 0	...	...	...	...	...	...	...	...	...	187 0 0
Kolába ...	...	...	1,750 0 0	...	1,750 0 0	...	...	...	...	...	...	...	...	...	1,750 0 0
Total, Central Circle ...	...	2,386 0 0	7,807 0 0	154 0 0	10,347 0 0	21	4,291 0 0	...	...	...	...	21	4,291 0 0	1,944 0 0	16,582 0 0
SOUTHERN CIRCLE.						M. F.					Rs.	M. F.	Rs.		Rs.
Kánara, Northern ...	...	174 0 0	51,194 0 0	...	51,368 0 0	22 2	38,138 0 0	...	...	34	2,58,075	56 2	2,96,213	765 0 0	3,48,346
Kánara, Eastern ...	...	4,819 0 0	1,704 0 0	...	6,523 0 0	6 6	4,320 0 0	...	...	...	...	6 6	4,320	3,498 0 0	14,341
Kánara, Central ...	...	...	...	...	.....	14 3	8,511 0 0	...	...	...	...	14 3	8,511	...	8,511
Kánara, Southern ...	...	...	...	...	.....	14 2	911 0 0	...	...	...	...	14 2	911	100 0 0	1,011
Kánara, Western ...	...	...	...	...	.....	6 3	22,443 0 0	4	128 0 0	...	...	10 3	22,571	604 0 0	23,175
Belgaum ...	...	...	114 0 0	...	114 0 0	9 0	11,649 0 0	...	...	...	...	9 0	11,649	1,410 0 0	13,173
Dhárwár-Bijápur ...	...	...	77 0 0	...	77 0 0	...	...	...	...	...	...	...	...	...	77 0 0
Total, Southern Circle ...	...	4,993 0 0	53,089 0 0	...	58,082 0 0	73 0	85,972 0 0	4	128 0 0	34	2,58,075	111	3,44,175	6,377 0 0	4,08,634
SIND CIRCLE.															
Sukkur ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Shikárpur ...	...	...	171 0 0	12 0 0	183 0 0	...	...	...	...	...	...	...	...	360 0 0	543 0 0
Lárkána ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	401 0 0	401 0 0
Hyderabad ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...
Karáchi ...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1,177 0 0	1,177 0 0
Total, Sind Circle ...	...	...	171 0 0	12 0 0	183 0 0	...	...	...	...	...	...	...	...	1,938 0 0	2,121 0 0
Grand Total ...	3,484	10,902 0 0	1,14,128	4,367 0 0	1,32,881 0 0	146	1,28,397	4	128 0 0	34	2,58,075	184	3,86,609	13,121 0 0	5,32,602 0 0

and buildings during the year 1918-1919.

Repairs executed during the year.														
Buildings.					Roads and paths.								Other works.	Total expenditure incurred.	Remarks.
Expenditure on					Cart roads		Bridle paths.		Others.		Total length of paths or roads.	Total expenditure incurred.	Expenditure incurred.		
Head quarter houses.	Rest-houses.	Houses for subordinate establishment.	Others.	Total expenditure incurred.	Length.	Cost.	Length.	Cost.	Length.	Cost.					
9(*a*)	9(*b*)	9(*c*)	9(*d*)	10	11(*a*)	11(*b*)	11(*c*)	11(*d*)	11(*e*)	11(*f*)	12	13	14	15	16
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Miles.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	.....	
44 0 0	...	150 0 0	...	194 0 0	...	...	...	...	...	...	.....	.....	159 0 0	353 0 0	
...	...	2,338 0 0	32 0 0	2,370 0 0	316	2,931 0 0	...	...	...	...	316	2,931 0 0	792 0 0	6,093 0 0	
...	...	1,323 0 0	...	1,323 0 0	1½	527 0 0	...	...	...	...	1½	527 0 0	.....	1,850 0 0	*Grant in cash in lieu of free grant of timber for Mandvi School. †Contribution to District Local Board for chawdi. ‡Rs. 1,100 contribution for the maintenance of a road by Local Board.
...	...	470 0 0	...	470 0 0	13¾	311 0 0	...	...	...	...	13¾	311 0 0	87 0 0	868 0 0	
...	...	1,587 0 0	...	1,587 0 0	20	2,475 0 0	...	...	...	...	20	2,475 0 0	47 0 0	4,109 0 0	
...	...	340 0 0	...	340 0 0	38	‡1,487 0 0	...	...	...	...	38	‡1,487 0 0	.....	1,827 0 0	
...	...	65 0 0	...	65 0 0	...	...	...	...	...	...	.....	.....	.....	65 0 0	
...	...	...	...	...	...	5 0 0	...	...	...	...	.....	5 0 0	.....	5 0 0	
44 0 0	...	6,273 0 0	32 0 0	6,349 0 0	389	7,736 0 0	...	...	...	...	389	7,736 0 0	1,085 0 0	15,170 0 0	
...	805 0 0	1,108 0 0	...	1,913 0 0	21	2,836 0 0	...	...	...	...	21	2,836 0 0	39 0 0	4,788 0 0	
...	22 0 0	856 0 0	...	878 0 0	3	645 0 0	2	25 0 0	...	...	5	670 0 0	152 0 0	1,700 0 0	
...	...	1,180 0 0	...	1,180 0 0	5	637 0 0	110	1,805 0 0	...	...	115	2,442 0 0	182 0 0	3,804 0 0	
...	...	55 0 0	...	55 0 0	1	118 0 0	4	760 0 0	...	...	5	878 0 0	.....	933 0 0	
...	...	116 0 0	175 0 0	291 0 0	27	983 0 0	...	...	36	169 0 0	63	1,152 0 0	102 0 0	1,545 0 0	
...	...	475 0 0	...	475 0 0	7	73 0 0	...	...	...	...	7	73 0 0	.....	548 0 0	
...	827 0 0	3,790 0 0	175 0 0	4,792 0 0	64	5,292 0 0	116	2,590 0 0	36	169 0 0	216	8,051 0 0	475 0 0	13,318 0 0	
					M. F.		M. F.				M. F.				
1,093 0 0	2,000 0 0	18,000 0 0	...	21,000 0 0	...	22,579 0 0 10,000 0 0	...	...	...	...	.....	32,579 0 0	184 0 0	53,763 0 0	*Contribution to the Local Boards.
423 0 0	129 0 0	2,491 0 0	...	3,046 0 0	128 0	41,187 0 0 *5,000 0 0	...	...	...	...	128 0	46,187 0 0	3,280 0 0	52,513 0 0	
186 0 0	296 0 0	356 0 0	...	838 0 0	4 0	3,130 0 0	...	...	...	...	4 0	3,130 0 0	160 0 0	4,128 0 0	
...	178 0 0	227 0 0	...	405 0 0	15 4	190 0 0	...	...	...	...	15 4	190 0 0	10 0 0	605 0 0	
308 0 0	273 0 0	937 0 0	...	1,518 0 0	70 2	42,944 0 0 *10,000 0 0	18 0	60 0 0	...	1,868 0 0	88 2	44,872 0 0 §10,000 0 0	777 0 0	57,167 0 0	
212 0 0	501 0 0	298 0 0	...	1,011 0 0	95 2	11,328 0 0	...	...	...	...	95 2	11,328 0 0	312 0 0	12,681 0 0	
...	...	104 0 0	...	104 0 0	...	...	...	...	...	...	.....	.....	34 0 0	138 0 0	
2,132 0 0	3,377 0 0	21,413 0 0	...	27,922 0 0	313	1,46,358 0 0	18 0	60 0 0	...	1,868 0 0	331	1,48,236 0 0	4,787 0 0	1,80,995 0 0	
...	64 0 0	521 0 0	163 0 0	748 0 0	...	...	...	...	...	...	.....	.....	387 0 0	1,135 0 0	
...	44 0 0	325 0 0	40 0 0	409 0 0	...	...	...	...	...	...	.....	.....	235 0 0	644 0 0	
152 0 0	...	238 0 0	...	390 0 0	...	...	...	...	...	...	.....	.....	625 0 0	1,015 0 0	
92 0 0	667 0 0	60 0 0	...	819 0 0	...	...	...	...	...	...	.....	.....	1,407 0 0	2,226 0 0	
777 0 0	...	23 0 0	...	800 0 0	...	...	...	...	...	...	.....	.....	1,148 0 0	1,948 0 0	
1,021 0 0	775 0 0	1,167 0 0	203 0 0	3,166 0 0	...	...	...	...	...	...	.....	.....	3,802 0 0	6,968 0 0	
3,197 0 0	4,979 0 0	33,643 0 0	410 0 0	42,229 0 0	766	1,59,386 0 0	134	2,650 0 0	36	2,037 0 0	936	1,64,073 0 0	10,149 0 0	2,16,451 0 0	

FORM No. 13.—*Statement showing register of*

Forest Division.	Cases pending from previous year.			New cases of the year.														
				Injury to forest by fire.			Unauthorized felling.			Unauthorized grazing.			Other offences.			Total.		
	A.	B.	All.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.	A.	B.	C.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NORTHERN CIRCLE.																		
Panch Mahála ...	4	25	29	1	6	20	4	433	269	12	1,101	...	2	74	5	19	1,614	294
Surat ...	...	20 (a)	20	4	4	6	...	25	1	...	41	...	...	6	...	4	76	7
North Thána ...	1	47	48	2	5	73	4	207	58	1	169	1	...	13	...	7	394	132
West Thána ...	9	4	13	22	...	49	50	170	49	10	214	1	3	40	1	85	424	100
East Thána ...	12	117 (b)	129	13	39	115	17	192	51	8	342	9	4	83	5	42	656	180
West Násik ...	...	...	...	...	6	19	1	129	12	...	155	...	...	48	...	1	338	31
North Násik ...	3	...	3	...	1	...	12	310	22	1	166	...	...	19	1	13	496	23
East Násik ...	...	51	51	...	...	...	21	586	33	5	312	1	2	10	...	28	908	34
Total, Northern Circle ...	29	264	293	42	61	282	109	2,052	495	37	2,500	12	11	293	12	199	4,906	801
CENTRAL CIRCLE.																		
East Khándesh ...	11*	147	158	3	19	12	12	423	104	9	494	1	8	208	4	32	1,144	121
West Khándesh ...	9	413	422	7	19	5	15	882	5	3	357	9	1	77	2	26	1,335	21
North Khándesh ...	6	127	133	...	22	13	16	342	52	4	289	3	2	185	3	22	838	71
Poona ...	13	314	327	2	17	33	24	612	105	11	917	12	2	170	1	39	1,716	151
Sátára ...	6	209	215	7	6	35	18	398	27	11	633	...	6	190	3	42	1,227	65
Kolába ...	56	70	126	38	13	109	84	252	211	96	285	12	13	60	...	231	610	332
Total, Central Circle ...	101	1,280	1,381	57	96	207	169	2,909	504	134	2,975	37	32	890	13	392	6,870	761
SOUTHERN CIRCLE.																		
Kánara, Northern ...	...	41	41	4	10	76	6	63	12	...	197	...	1	...	2	11	270	90
Kánara, Eastern ...	...	5	5	2	4	160	...	46	7	1	84	...	1	11	...	4	145	167
Kánara, Central ...	9	136	145	3	9	383	10	187	32	3	24	...	...	11	...	16	231	415
Kánara, Southern ...	30	111	141	1	8	209	6	531	57	2	11	...	...	41	2	9	591	268
Kánara, Western ...	8	12	20	4	2	188	8	164	26	1	52	...	1	13	1	14	231	213
Belgaum ...	16	268	284	3	13	199	11	370	81	7	810	6	...	14	...	21	1,212	286
Dhárwár-Bijápur ...	6	39	45	...	...	13	7	264	30	1	338	...	...	26	...	8	628	43
Total, Southern Circle.	69	612	681	17	51	1,226	48	1,625	245	15	1,516	6	3	116	5	83	3,308	1,482
SIND CIRCLE.																		
Sukkur ...	4	...	4	1	1	77	39	436	234	3	479	...	2	9	...	45	925	311
Shikárpur ...	17	...	17	...	...	33	6	283	145	...	348	...	...	9	...	6	635	178
Lárkána ...	3	25	28	...	...	48	2	406	18	1	359	...	1	6	1	4	771	67
Hyderabad ...	19	...	19	...	...	35	20	202	50	4	415	...	1	4	...	25	621	85
Karáchi ...	10	8	18	...	1	55	8	150	9	3	110	...	...	1	...	11	262	64
Total, Sind Circle ...	53	33	86	1	2	248	75	1,477	456	11	1,706	...	4	29	1	91	3,214	705
Grand Total ...	252	2,189	2,441	117	210	1,963	401	8,063	1,700	197	8,697	55	50	1,328	31	765	18,298	3,749

(a) Seven cases were transferred to C.

(b) One case was transferred to A.

* Two transferred from B.

breaches of Forest Rules during the year 1918-19.

Total cases.				Disposed of during the year.														Cases pending at the close of the year.			Remarks.
				Convictions.				Acquittals.				Total.									
				Cases.		Persons.		Cases.		Persons.		Cases.			Persons.						
A.	B.	C.	All.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	All.	A.	B.	All.	A.	B.	All.	
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	1
23	1,639	294	1,956	17	1,582	79	4,091	4	...	11	...	21	1,582	1,603	90	4,091	4,181	2	57	59	
4	89	14	107	4	80	6	169	...	...	...	...	4	80	84	6	169	175	...	9	9	
8	441	132	581	3	307	3	457	...	...	...	...	3	307	310	3	457	460	5	134	139	
94	428	100	622	66	428	118	1,262	4	...	11	...	70	428	498	124	1,262	1,386	24	...	24	
54	773	180	1,007	26	550	86	1,634	...	...	...	...	26	550	576	86	1,634	1,720	28	223	251	
1	338	31	370	1	305	2	952	...	...	...	...	1	305	306	2	952	954	...	33	33	
16	496	23	535	9	496	34	1,297	...	...	...	...	9	496	505	34	1,297	1,331	7	...	7	
28	959	34	1,021	12	933	24	2,532	1		26	...	13	933	951	50	2,532	2,582	15	21	36	
228	5,163	808	6,199	138	4,686	347	12,394	9	...	48	...	147	4,686	4,833	395	12,394	12,789	81	477	558	
43	1,291	121	1,455	32	1,019	112	3,367	4	...	22	...	36	1,019	1,055	134	3,367	3,501	7	272	279	
35	1,748	21	1,804	28	1,308	90	3,675	1	...	10	...	29	1,308	1,337	100	3,675	3,775	6	440	446	
28	965	71	1,064	23	580	47	1,571	1	...	1	...	24	580	604	48	1,571	1,619	4	385	389	
52	2,030	151	2,233	36	1,642	102	3,901	2	...	19	...	38	1,642	1,680	121	3,901	4,022	14	388	402	
48	1,476	65	1,549	28	1,232	54	2,852	1	...	1	...	29	1,232	1,261	55	2,852	2,907	19	204	223	
287	680	332	1,299	165	500	349	1,124	21	...	48	...	186*	500	686	397	1,124	1,521	99	180	279	*Two withdrawn.
493	8,159	761	9,404	312	6,281	754	16,490	30	...	101	...	342	6,281	6,623	855	16,490	17,345	149	1,869	2,018	
11	311	90	412	3	201	4	458	...	...	...	...	3	201	204	4	458	462	8	110	118	
4	150	167	321	1	138	2	185	...	...	...	...	1	138	139	2	185	187	3	12	15	
25	367	415	807	9	245	11	464	6	...	33	...	15	245	260	44	464	508	10	83	93	
39	702	268	1,009	14	470	40	1,525	11	...	34	...	25	470	495	74	1,525	1,599	4	190	194	
22	243	213	478	16	226	32	509	1	...	9	...	17	226	243	41	509	550	5	17	22	
37	1,480	286	1,803	12	1,238	24	2,827	3	...	13	...	15	1,238	1,253	37	2,827	2,864	22	242	264	
14	667	43	724	6	567	14	1,583	...	...	...	...	6	567	573	14	1,583	1,597	8	100	108	
152	3,920	1,482	5,554	61	3,085	127	7,551	21	...	89	...	82	3,085	3,167	216	7,551	7,767	60	754	814	
49	925	311	1,285	40	925	65	991	4	...	7	...	44	925	969	72	991	1,063	5	...	5	
23†	635	178	836	2	635	4	776	7	...	35	...	9	635	644	39	776	815	8	...	8	
7	796	67	870	2	684	8	722	2	...	4	...	4	684	688	12	722	734	3	112	115	
44‡	621	85	750	9	621	36	874	3	...	7	...	12	621	633	43	874	917	27	...	27	
21§	270	64	355	11	260	26	290	2	...	4	...	13	260	273	30	290	320	7	10	17	
144	3,247	705	4,096	64	3,125	139	3,653	18	...	57	...	82	3,125	3,207	196	3,653	3,849	50	122	172	
1,017	20,480	3,756	25,253	575	17,177	1,367	40,088	78	...	295	...	653	17,177	17,830	1,662	41,088	41,750	340	3,232	3,562	

Under B 38 within off 1 no offence.
Under A 10 withdrawn.
Under B 2 within off 40 no offence.
† Three cases transferred to B and 3 withdrawn.
‡ Five cases transferred to B.
§ One case transferred to B.

A Means cases taken into Court.
B " " compounded and let off with warning.
C " " undetected.

FORM No. 14.—*Area of Forest Tracts protected from fire during 1918-1919.*

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1917-1918.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
NORTHERN CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Panch Mahals ...	South Godhra Range.	1878-79 ...	51,679	51,828	...	51,828	429 0 0	
	North do. ...	,, ...	36,960	37,428	3	37,425		
	Kalol	,, ...	19,883	21,527	4	21,523		
	Halol	,, ...	26,902	28,264	477	27,787		
	Dohad	,, ...	44,450	46,242	81	46,161		
	Jhalod	,, ...	26,069	26,863	80	26,783		
	Total ...	...	205,943	212,152	645	211,507	429 0 0	
Surat	Dangs	1878-79 ...	419,799	419,810	2,101	417,709	5,637 0 0	
	Mandvi	,, ...	40,887	40,887	201	40,686		
	Bulsar-Chikhali ...	,, ...	2,810	2,810	11	2,799		
	Total ...	...	463,496	463,507	2,313	461,194	5,637 0 0	
North Thana ...	Sanjan	1878-79 ...	30,915	31,247	518	30,729	3,439 0 0	
	Udhwa	,, ...	34,839	35,712	543	35,169		
	Kasa	,, ...	61,503	62,478	470	62,008		
	Palghar	,, ...	28,473	28,889	627	28,262		
	Manor	,, ...	28,417	29,119	671	28,448		
	Dahisar	,, ...	33,634	33,851	683	33,168		
	Total ...	...	317,781	221,296	3,512	217,784	3,439 0 0	
West Thana ...	Bassein	1878-79 ...	41,037	41,037	60	40,977	3,687 0 0	
	West Vada	,, ...	32,716	32,919	502	32,417		
	Bhiwandi	,, ...	43,310	43,970	2,061	41,909		
	Salsette	,, ...	14,352	14,808	820	13,988		
	Kalyan	,, ...	33,082	33,438	2,005	31,433		
	West Murbad ...	,, ...	26,258	26,480	124	26,356		
	Total ...	...	190,755	192,652	5,572	187,080	3,687 0 0	
East Thana ...	Khardi	1878-79 ...	51,118	52,354	6,936	45,418	4,819 0 0	
	Mokhada	,, ...	41,785	41,838	1,293	40,545		
	North Shahapur ...	,, ...	41,917	45,604	8,591	37,013		
	South do. ...	,, ...	23,372	24,645	2,783	21,862		
	East Murbad ...	,, ...	28,550	29,370	1,571	27,799		
	East Vada ...	,, ...	44,580	45,809	1,387	44,422		
	Igatpuri ...	,, ...	52,932	53,875	336	53,539		
	Total ...	...	283,954	293,495	22,897	270,598	4,819 0 0	
West Nasik ...	Nasik	1878-79 ...	40,225	40,928	131	40,797	185 0 0	
	Dindori	,, ...	53,198	53,736	64	53,672		
	Peint	,, ...	126,144	126,234	546	125,688		
	Total ...	...	219,567	220,898	741	220,157	185 0 0	
North Nasik ...	Malegaon	1878-79 ...	89,125	89,139	...	89,139	.....	
	Baglan	,, ...	119,292	119,995	...	119,995	.....	
	Kalwan	,, ...	106,875	107,032	...	107,032	.....	
	Total ...	...	315,292	316,166	...	316,166	.....	
East Nasik ...	Chandor	1878-79 ...	30,112	30,112	...	30,112	.....	
	Nandgaon	,, ...	77,586	77,586	...	77,586	.....	
	Sinnar	,, ...	31,561	31,601	...	31,601	.....	
	Yeola	,, ...	25,823	25,831	...	25,831	.....	
	Total ...	...	165,087	165,130	...	165,130	.....	
	Total, Northern Circle.	...	20,61,875	20,85,296	35,680	20,49,616	18,196 0 0	

FORM No. 14.—*Area of Forest Tracts protected from fire during 1918-1919*—continued.

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1917-1918.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
CENTRAL CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
East Khándesh	Chálisgaon	1878-79	38,100	38,250	...	38,250	6 0 0	
	Chopda	,,	98,836	107,700	5,277	102,423	487 0 0	
	Edlabad	,,	39,656	41,346	539	40,807	115 0 0	
	Jalgaon	,,	38,697	38,812	586	38,226	.....	
	Jámner	,,	63,832	64,390	331	64,059	13 0 0	
	Farola	,,	43,921	43,921	3	43,918	.....	
	Ráver	,,	74,749	76,210	1,688	74,522	249 0 0	
	Yáwal	,,	73,490	78,000	11,050	66,950	312 0 0	
	Total	...	471,281	488,629	19,474	469,155	11,82 0 0	
West Khándesh	Dhulia	1878-79	75,790	75,796	...	75,796	31 0 0	
	Sákri and Pimpalner.	,,	164,946	180,847	743	180,104	1,463 0 0	
	Nandurbár	,,	62,542	70,155	6	70,149	1,133 0 0	
	Navápur	,,	46,991	70,129	5,081	65,048	1,939 0 0	
	Total	...	350,269	396,927	5,830	391,097	4,566 0 0	
North Khándesh	Akráni	1878-79	176,280	194,683	20,000	174,683	2,000 0 0	
	Taloda	,,	66,411	71,161	92	71,069	1,285 0 0	
	Sháháda	,,	73,682	83,663	4,010	79,653	514 0 0	
	Shirpur, East	,,	180,647	206,772	1,162	205,610	1,092 0 0	
	Do. West							
	Total	...	497,020	556,279	25,264	531,015	5,148 0 0	
Kolába	Alibág	1889-90	27,471	27,489	380	27,109	.....	
	Pen	,,	29,931	29,964	537	29,427	.....	
	Panvel	,,	27,517	27,572	299	27,272	24 0 0	
	Karjat	,,	32,187	32,520	2,455	30,065	84 0 0	
	Khálápur	,,	21,861	21,879	606	21,273	14 0 0	
	Nágothna	,,	35,194	35,219	212	35,007	.....	
	Roha	,,	39,136	39,278	1,016	38,263	.....	
	Mángaon	,,	26,249	26,290	82	26,208	.....	
	Mahád	,,	25,859	25,877	211	25,666	.....	
	Dápoli	,,	2,116	2,119	8	2,111	.....	
	Mátherán	,,	1,061	1,061	10	1,051	21 0 0	
	Total	...	268,582	269,268	5,816	263,452	143 0 0	
Poona	Haveli	1879-80	24,455*	26,523	1,110	25,423	18 0 0	
Sátára	Mahábleshwar	1909-10	11,917*	11,983	739	11,244	164 0 0	
	Total, Central Circle.	...	1,623,524	1,749,609	58,223	1,691,386	11,221 0 0	

*The decrease *viz.*, 332,696 acres in Poona and 317,857 acres in Sátára in all 650,883 as compared with the area shown in the previous return is due to area actually protected only having been accounted for during the year under report.

FORM No. 14.—*Area of Forest Tracts protected from fire during 1918-1919*—continued.

Division.	Forest Ranges.	Year in which protection commenced.	Area protected during 1917-1918.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
SOUTHERN CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Kánara, Northern ...	Haliyál ...	1887-88 ...	47,346	51,295	2,097	49,128	1,165 0 0	
	Sambrani ...	,, ...	46,980	47,113	10,880	36,233	475 0 0	
	Dandeli ...	,, ...	48,465	53,695	27,149	26,246	649 0 0	
	Kulgi ...	,, ...	29,261	46,825	28,836	17,989	576 0 0	
	Virnoli ...	,, ...	46,568	2[illegible]	18,388	10,873	372 0 0	
	Kalghatgi ...	1888-89 ...	40,519	44,884	503	44,381	1,251 0 0	
	Total ...	...	259,139	273,003	88,153	184,850	4,488 0 0	
Kánara, Eastern ...	Yellápur ...	1888-89 ...	112,710	114,763	40,000	74,763	663 0 0	
	Kirwatti ...	,, ...	50,497	66,126	60,000	6,126	1,181 0 0	
	Bhartnalli ...	,, ...	68,036	64,085	40,000	24,085	381 0 0	
	Mundgod ...	,, ...	44,922	64,303	40,000	24,303	808 0 0	
	Katur ...	,, ...	39,135	42,343	20,000	22,343	482 0 0	
	Dhundshi ...	,, ...	23,699	24,141	370	23,771	490 0 0	
	Total ...	...	333,999	375,761	200,370	175,391	4,005 0 0	
Kánara, Central ...	Sirsi East ...	1906-07	196,619	215,273	25,588	189,685	.....	
	Do. West ...							
	Ankola ...	1888-89 ...	220,409	221,806	5,642	210,164	.....	
	Kumta ...	1899-00 ...	61,587	61,751	1,245	60,506	.....	
	Total ...	...	478,615	498,830	32,475	466,355	1,147 0 0	
Kánara, Southern ...	Siddápur ...	1910-11 ...	137,917	141,193	9,042	132,151	257 0 0	
	Honávar ...	1900-01 ...	124,032	124,546	916	121,630	238 0 0	
	Bhatkal ...	1899-00 ...	122,013	124,002	2,700	121,302	317 0 0	
	Total ...	...	383,962	387,741	12,658	375,083	812 0 0	
Kánara, Western ...	Kárwár ...	1887-88 ...	81,337	81,656	1,909	79,747	859 0 0	
	Kadra ...	,, ...	205,242	205,638	1,276	204,362	1,191 0 0	
	Supa ...	1888-89 ...	214,155	219,377	41,115	178,262	633 0 0	
	Gund ...	,, ...	23,393	23,484	2,216	21,268	386 0 0	
	Total ...	...	524,127	530,155	46,516	483,639	3,069 0 0	
Belgaum	Pátne ...	1888-89 ...	83,233	84,448	4,838	79,610	.....	
	Merde ...	1886-87 ...	37,516	48,492	9,412	39,080	.....	
	Khánápur ...	1910-11 ...	68,887	77,784	12,820	64,964	.....	
	Jamboti ...	1889-90 ...	96,126	97,717	1,404	96,313	.....	
	Gujnal ...	1894-95 ...	123,833	126,995	305	126,690	.....	
	Total ...	...	409,595	435,436	28,779	406,657	6,748 0 0	
Dhárwár-Bijápur ...	Dhárwár ...	1888-89 ...	17,607	21,131	...	21,131	.....	
	Hangal ...	,, ...	9,227	12,799	277	12,522	274 0 0	
	Kod ...	1907-08 ...	16,404	41,195	204	40,991	243 0 0	
	Bádámi ...	1889-90 ...	18,350	3,703	35	3,668	161 0 0	
	Bágalkot ...	,, ...	4,439	48,984	70	48,914	.....	
	Total ...	...	66,027	127,812	586	127,226	678 0 0	
	Total, Southern Circle.	...	2,455,464*	2,628,738	403,537	2,219,201	20,947 0 0	

* Excludes 12,063 acres in Ratnágiri. Since transferred to the Revenue Department.

FORM No. 14.—*Area of Forest Tracts protected from fire during 1917-1918*—concluded.

Division.	Forest Ranges.	Year in which protection commenced	Area protected during 1916-1917.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
SIND CIRCLE.			Acres.	Acres.	Acres.	Acres.	Rs. a. p.	
Sukkur	Mirpur	1903	44,469	44,877	481	43,396	.....	
	Ghotki	„	30,498	30,569	414	30,155	.....	
	Pano Akil	1902	52,205	52,418	721	51,697	.....	
	Sukkur	1903	35,971	39,532	273	39,259	.....	
	Rohri	„	45,338	45,933	179	45,814	.....	
	Total	...	208,481	213,389	2,068	211,321	.....	
Shikarpur	Ruk	1878-79	34,655	34,426	311	34,115	.....	
	Shikarpur	1885-86	47,605	46,701	6	46,695	.....	
	Kashmore	1895-96	34,788	34,750	21	34,729	.....	
	Total	...	117,048	115,877	338	115,539	.....	
Lárkána	Lárkána	1918	25,096	26,174	1,566	24,6 8	105 0 0	
	Radhan	..	22,598	22,378	20	22,358	.....	
	Sehwán	1918	21,831	22,202	990	21,212	30 0 0	
	Kandiáro	1915	42,165	39,014	187	38,827	130 0 0	
	Total	...	111,690	109,768	2,763	107,005	265 0 0	
Hyderabad	Hyderabad	1915-16	2,223	2,223	...	2,223	46 0 0	
	Miáni	„	26,492	25,811	112	25,699		
	Hála	„	51,220	55,944	654	55,290		
	Sakrand	„	49,184	50,167	2,680	47,487		
	Manjhand	„	30,938	24,656	...	24,656		
	Total	...	160,057	155,801	3,446	155,355	46 0 0	
Karachi	Katiar	1912-13	20,037	19,362	8	19,354	42 0 0	
	Mulchand	„	46,980	47,814	855	46,959	408 0 0	
	Sujawal	„	22,303	22,245	934	21,311	83 0 0	
	Tatta	„	51,931	52,587	273	52,314	260 0 0	
	Total	...	141,251	142,008	2,070	139,938	793 0 0	
	Total, Sind Circle	...	738,527	739,843	10,685	729,158	1,254 0 0	
	GRAND TOTAL, PRESIDENCY	...	6,879,390	7,203,486	514,125	6,689,631	51,618 0 0	

FORM No. 15.—*Causes of*

Division or Circle.	(A) Fires caused by accident or through carelessness in burning fire lines.		(B) Fires entering the forests by crossing exterior fire-traces.		(C) FIRES BEGINNING INSIDE THE Owing to carelessness or accident.							
					By workmen employed in the forests, by purchasers, cutters, etc.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire-balloons.	
	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.												
Panch Mahals	1	3	...	...	2	37	3	81	3	3	...	...
Surat	3	235	1	1	...	...	7	2,629	..	...	...	...
North Thána	...	...	6	70	...	...	2	82	...	...	...	...
West do.	...	...	16	915	8	255	4	38	1	60	...	...
East do.	8	376	27	3,348	2	35	27	2,399	7	126	...	...
West Násik	5	51	2	335	...	...	12	201	...	...	...	...
North do.	...	...	...	...	...	...	...	...	..	...	...	...
East do.	...	...	...	...	...	...	...	...	...	...	...	...
Total, Northern Circle	17	635	52	4,669	12	327	55	4,830	11	189	...	...
CENTRAL CIRCLE.												
East Khándesh	8	11,376	1	749	17	4,806	4	580	...	...	...	...
West do.	...	...	2	138	..	...	18	2,352	...	...	...	...
North do.	1	50	1	11	5	152	14	24,265	...	...	...	...
Poona	10	190	7	156	1	50	14	50	1	3	..	...
Sátára	...	...	12	24	3	27	1	5	...		...	...
Kolába	...	...	49	1,413	4	46	36	725	14	405	...	..
Total, Central Circle	19	11,616	72	2,491	30	5,081	87	28,077	15	408	...	...
SOUTHERN CIRCLE.												
Kánara, Northern	1	170	27	53,160	...	...	1	100	5	7,537	...	...
Do. Eastern	4	115	5	836	2	65	...	...	...	...	...	...
Do. Central	3	1,920	16	1,927	1	200	81	9,269	...	...	...	...
Do. Southern	...	...	3	280	...	...	45	3,003	...	...	...	...
Do. Western	...	...	19	8,274	4	459	17	1,008	1	200	...	...
Belgaum	1	20	23	1,163	...	...	...	...	14	333	...	...
Dhárwár-Bijápur	...	...	5	277	...	...	...	...	1	20	...	...
Total, Southern Circle	9	2,225	98	65,917	7	724	144	13,380	21	8,090	...	...
SIND CIRCLE.												
Sukkur	1	83	3	161	21	287	1	2	4	242	...	...
Shikarpur	...	...	1	1	8	16	...	...	1	2	...	...
Lárkána	...	...	5	83	5	83	20	1,135	...	...	...	..
Hyderabad	...	...	...	...	...	...	...	...	...	...	...	...
Karachi	...	...	1	6	7	218	5	185	...	...	...	...
Total, Sind Circle	1	83	10	251	41	604	26	1,322	5	244	...	...
GRAND TOTAL, PRESIDENCY...	46	14,559	232	73,328	80	6,736	312	47,609	52	8,931	...	...

Forest Fires during 1918-19.

Reserve or fire-traced Area.												
By Intentional Firing.								Causes Unknown.		Total (A), (B) and (C).		Remarks.
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.						
No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	No. of fires.	Area burnt in acres.	
14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	1	5	...	...	9	126	15	516	25	645	Plus 2 cases on account of breach of rules.
...	...	...	...	...	...	7	2,029	2	78	13	2,313	Plus 1 do.
...	...	...	...	...	...	2	82	71	3,360	79	3,512	Do.
...	...	1	125	...	...	14	478	41	4,179	71	5,572	
...	...	...	...	...	...	36	2,560	96	16,614	167	22,898	
...	...	6	154	...	...	18	355	...	...	25	741	
...	...	...	...	...	...	...	...	...	...	...	...	Plus 1 case on a ccount of breach of rules.
...	...	...	...	..	...	...	...	...	...	...	..	
...	...	8	284	...	...	86	5,630	225	24,747	380	35,681	
...	...	1	1	...	...	22	5,387	18	1,962	49	19,474	
...	...	...	...	7	3,216	25	5,598	4	94	31	5,830	
...	...	4	166	1	5	24	24,588	10	615	36	25,264	
...	...	1	60	3	104	20	367	15	387	52	1,100	
...	...	...	...	...	...	4	32	35	684	51	740	
...	...	...	...	...	...	54	1,175	57	3,227	160	5,816	
...	...	6	227	11	3,355	149	37,147	139	6,969	379	58,224	
..	...	11	490	1	25	18	8,152	44	26,661	90	88,153	
...	...	...	...	....	....	2	65	155	199,354	166	200,370	
14	1,704	2	39	16	1,515	114	12,727	262	15,901	395	32,475	
12	1,070	...	...	4	293	61	4,366	154	8,012	2.8	12,658	
49	9,554	1	14	2	...	74	11,246	99	29,996	192	46,516	
...	...	...	...	182	27,263	196	27,596	...	...	220	28,779	
...	...	2	200	...	.	3	220	5	89	13	586	
75	12,328	16	743	235	29,107	468	64,372	719	277,023	1,294	409,537	
15	220	...	...	...	...	4	751	34	1,073	79	2,068	
3	140	...	...	...	...	12	158	20	179	33	338	
18	1,462	...	...	...	...	43	2,680	...	...	43	2,763	
...	...	...	...	...	...	...	...	35	3,446	35	3,446	
39	1,459	3	192	1	10	55	2,064	...	...	56	2,070	
75	3,281	3	192	1	10	151	5,653	89	4,698	251	10,685	
150	15,609	33	1,446	217	32,472	854	112,803	1,172	313,437	2,304	514,127	

FORM No. 16.—*Area closed and open to grazing during 1918-1919.*

Division.	AREA IN SQUARE MILES.						Remarks.
	Closed to all animals.		Open to grazing.				
			Of all animals.		Of all animals except browsers (camels, sheep, and goats).		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.	Sq.m.	Sq.m.	Sq.m.	Sq.m.	Sq.m.	Sq.m.	
Panch Mahâls	76	19	.....	.....	236	.....	
Surat	14	54	338	.....	.....	331	
North Thána	72	.....	148	.....	275	.....	
West do.	71	.....	89	.....	230	.....	
East do.	125	.....	142	.....	333	.....	
West Násik	57	9	102	.....	279	.....	
North do.	80	.....	183	.....	256	.....	
East Násik	9	3	46	.....	238	.....	
Ahmedabad	.....	.....	19	.....	.....	.....	
Total, Northern Circle	504	85	1,067	.....	1,847	331	
CENTRAL CIRCLE.							
East Khándesh	202	58	36	.....	504	.....	
West do.	99	.....	177	.....	521	.....	
North do.	126	.....	.....	.....	743	.....	
Poona	28	54	427	.....	483	.....	
Sátára	35	.....	195	.....	482	.....	
Kolába	60	1	103	.....	363	.....	
Ahmednagar-Sholapur	.....	.....	699	.....	.....	.....	
Total, Central Circle	550	113	1,637	.....	3,096	.....	
SOUTHERN CIRCLE.							
Kánara, Northern	239	.....	2		186	.....	
Do. Eastern	263	.....	.....	.....	330	.....	
Do. Central	478	.....	.....	.....	355	.....	
Do. Southern	134	.....	.....	.....	574	.....	
Do. Western	264	.....	.....	.....	564	.....	
Belgaum	135	.....	3	.....	545	.....	
Dhárwár-Bijápur	15	6	159	.....	310	4	
Ratnágiri	.....	.....	19	.....	.....	.....	
Total, Southern Circle	1,528	6	183	.....	2,864	4	
SIND CIRCLE.							
Sukkur	26	.....	220	.....	87	.....	
Shikarpur	15	.....	110	.....	56	.....	
Larkana	6	.....	82	.....	84	.....	
Hyderabad	18	.....	119	.....	111	.....	
Karachi	1	.....	116	.....	105	.....	
Total, Sind Circle	66	.....	647	.....	443	.....	
GRAND TOTAL, PRESIDENCY	2,648	204	3,534	.....	8,250	335	

FORM No. 17.

FORM No. 17.—*Return of Grazing*

Division.	Grazing on Payment—Number of Animals.												
	At full rates.						At privileged rates.						
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Fees received. Actual.	Fees received. Value at full rates.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
NORTHERN CIRCLE.						Rs. a. p.						Rs. a. p.	Rs. a. p.
Reserved Forests.													
Panch Mahâls ...	1,381	2,368	...	...	...	2,565 0 0	123	501	...	...	...	86 0 0	374 0 0
Surat ...	244	...	...	...	...	244 0 0	306	1,126	...	...	...	169 0 0	1,432 0 0
North Thâna ...	...	...	...	...	...	.....	120	143	...	...	...	57 0 0	239 0 0
West do. ...	78	567	...	...	...	452 0 0	508	2,580	...	...	...	1,003 0 0	2,248 0 0
East do. ...	233	4,515	16	...	2	3,116 0 0	2,335	20,323	24	...	...	4,620 0 0	15,624 0 0
West Násik ...	...	...	...	...	...	.....	6,742	51,118	...	...	35	8,072 0 0	57,895 0 0
North do. ...	12	449	...	...	259	720 0 0	13,605	110,818	128,148	...	632	23,093 0 0	1,57,092 0 0
East Násik ...	20	10	195	...	95	174 0 0	7,657	50,593	59,593	...	490	12,382 0 0	71,638 0 0
Total, Northern Circle ...	1,968	7,909	211	...	356	7,271 0 0	31,396	237,202	187,765	...	1,157	49,482 0 0	3,06,542 0 0
Protected Forests.													
North Thâna ...	...	...	...	...	...	.....	...	...	...	...	...	.....	.....
West Thâna ...	...	...	...	...	...	.....	12	100	94	...	...	46 0 0	101 0 0
Total ...	...	...	...	...	...	.....	12	100	94	...	...	46 0 0	101 0 0
Leased Forests.													
Surat ...	...	...	...	...	...	.....	30	1,345	...	...	25	869 0 0	2,832 0 0
Total Northern Circle ...	1,968	7,909	211	...	356	7,271 0 0	31,438	238,647	187,859	...	1,182	50,397 0 0	3,09,475 0 0
CENTRAL CIRCLE.													
Reserved Forests.													
East Khándesh ...	728	10,879	...	...	204	11,811 0 0	34,311	197,376	...	...	406	32,496 0 0	2,32,093 0 0
West do. ...	519	2,818	...	...	814	4,151 0 0	18,257	128,245	57,078	...	1,755	27,654 0 0	2,05,335 0 0
North do. ...	2,370	30,107	...	...	907	33,384 0 0	9,878	72,710	...	...	150	14,299 0 0	82,738 0 0
Poona ...	...	41	...	...	...	41 0 0	19,669	159,449	29,108	...	437	27,659 0 0	2,08,663 0 0
Sátára ...	...	...	...	...	...	.....	35,584	96,965	...	...	...	17,521 0 0	1,32,549 0 0
Kolába ...	51	37	...	...	...	88 0 0	17,897	63,238	102	...	...	10,899 0 0	81,237 0 0
Total ...	3,668	43,882	...	...	1,925	49,475 0 0	135,596	717,983	86,288	...	2,748	1,30,528 0 0	9,42,615 0 0
Protected Forests.													
Sátára ...	...	...	...	...	...	.....	89	123	...	...	...	53 0 0	212 0 0
Leased Forests.													
Sátára ...	...	...	...	...	...	.....	432	781	...	...	...	153 0 0	1,213 0 0
Total, Central Circle ...	3,668	43,882	...	...	1,925	49,475 0 0	1,36,117	718,887	86,288	...	2,748	1,30,734 0 0	9,44,040 0 0
SOUTHERN CIRCLE.													
Reserved Forests.													
Kánara, Northern ..	2,673		...	...	...	2,673 0 0	21,350		2,320	...	...	4,764 0 0	21,930 0 0
Do. Eastern ...	3,013		...	...	...	3,503 0 0	37,729		12	...	...	7,519 0 0	37,732 0 0
Do. Central ...	...		...	...	...	.....	38,846		...	...	...	5,224 0 0	38,846 0 0
Do. Southern ...	...		...	...	...	.....	77,181		...	...	...	10,086 0 0	77,181 0 0
Do. Western ...	...		...	...	...	.....	26,870		...	...	...	4,404 0 0	26,870 0 0
Belgaum ...	...		...	...	...	.....	52,129		...	...	...	10,108 0 0	52,129 0 0
Dhárwár-Bijápur ...	1,987		39	...	27	2,024 0 0	158,189		5,232	...	1,108	22,019 0 0	1,60,605 0 0
Total, Southern Circle ...	7,673		39	...	27	8,200 0 0	412,294		7,564	...	1,108	64,124 0 0	4,15,293 0 0
SIND CIRCLE.													
Reserved Forests.													
Sukkur ...	5,507	7,063	14,794	211	203	9,408 0 0	...	...	...	...	...	.....	.....
Shikarpur ...	2,757	3,911	9,792	395	62	4,818 0 0	...	...	...	...	...	.....	.....
Lárkána ...	5,243	2,823	13,723	332	176	6,823 0 0	...	...	...	...	...	.....	.....
Hyderabad ...	4,525	4,401	34,684	299	55	10,970 0 0	...	...	...	...	...	.....	.....
Kárachi ...	4,626	3,955	8,981	679	...	7,742 0 0	...	...	...	...	...	.....	.....
Total, Sind Circle ...	22,658	21,853	81,974	1,916	496	39,756 0 0	...	...	...	...	...	.....	.....
GRAND TOTAL PRESIDENCY ...	109,611		82,224	1,916	2,804	1,04,702 0 0	15,37,383		281,711	...	5,038	2,45,255 0 0	16,68,808 0 0

in the State Forests during 1918-1919.

Grazing Free—Number of Animals.													
By right under Settlement.						During pleasure of Government, or otherwise than under Settlement.						Total Value of Fees at full rates.	Grand Total of Value at full rates.
Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other Animals.	Value of Fees at full rates.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28
					Rs. a. p.						Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	...	.....	20,279	135,742	...	...	...	88,150 0 0	88,150 0 0	91,089 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,676 0 0
...	...	...	...	...	.....	7,620	34,346	...	...	...	30,991 0 0	30,991 0 0	31,230 0 0
...	...	...	...	...	.....	19,329	67,503	...	...	...	66,351 0 0	66,351 0 0	69,051 0 0
...	...	...	...	...	.....	13,774	60,237	...	...	...	55,116 0 0	55,116 0 0	73,856 0 0
...	...	...	...	...	.....	9,000	21,000	...	...	...	30,000 0 0	30,000 0 0	87,895 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,57,812 0 0
...	...	...	...	...	.....		...	...	...	...	.....	.....	71,812 0 0
...	...	...	...	...	.....	70,002	318,828	...	...	...	2,70,608 0 0	2,70,608 0 0	5,84,421 0 0
...	...	...	...	...	.....	13,724	67,600	...	...	...	59,405 0 0	59,405 0 0	59,405 0 0
...	...	...	...	...	.....	3,306	12,746	...	...	29	12,117 0 0	12,117 0 0	12,218 0 0
...	...	...	...	...	.....	17,030	80,346	..	...	29	71,522 0 0	71,522 0 0	71,623 0 0
...	...	...	...	..	.....	1,719	25,551	4,217	...	71	31,558 0 0	31,558 0 0	34,390 0 0
...	...	...	...	...	.....	88,751	424,725	4,217	...	100	3,73,688 0 0	3,73,688 0 0	6,90,434 0 0
2,057	8,371	...	...	17	10,445 0 0	...	..	...	...	...	.....	10,445 0 0	2,54,349 0 0
...	...	...	...	..	.....	882	13,677	...	...	30	14,589 0 0	14,589 0 0	2,24,075 0 0
...	...	...	...	...	.....	2,943	18,725	...	...	...	21,668 0 0	21,668 0 0	1,37,790 0 0
...	...	...	...	...	.....	...	10,000	...	...	..	10,000 0 0	10,000 0 0	2,18,704 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,32,549 0 0
...	...	...	...	...	.....	735	2,777	...	...	...	3,512 0 0	3,512 0 0	84,837 0 0
2,057	8,371	...	...	17	10,445 0 0	4,560	45,179	...	...	30	49,769 0 0	60,214 0 0	10,52,304 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	212 0 0
...	...	...	...	...	.....	...	...	...	...	...	.....	.....	1,213 0 0
2,057	8,371	...	..	17	10,445 0 0	4,560	45,179	...	...	30	49,769 0 0	60,214 0 0	10,53,729 0 0
...	...	...	...	...	.....	11,899		...	...	...	11,899 0 0	11,899 0 0	36,502 0 0
...	...	...	...	...	.....	2,124		...	...	...	2,124 0 0	2,124 0 0	43,359 0 0
...	...	...	...	...	.....	12,154		...	...	...	12,154 0 0	12,154 0 0	51,000 0 0
...	...	...	...	...	.....	.....		...	...	...	.....	.....	77,181 0 0
...	...	...	...	...	.....	... ..		...	...	...	.....	.....	26,870 0 0
...	...	...	...	...	.....	15,126		...	...	...	15,126 0 0	15,126 0 0	67,255 0 0
...	...	...	...	...	.....	2,583		...	...	...	2,583 0 0	2,583 0 0	1,65,212 0 0
...	...	...	...	...	.....	43,886		...	...	...	43,886 0 0	43,886 0 0	4,67,379 0 0
851	2,907	...	...	32	1,738 0 0	114	388	50	50	270	312 0 0	2,050 0 0	11,453 0 0
325	1,103	...	...	14	385 0 0	909	2,824	...	...	445	960 0 0	1,295 0 0	6,113 0 0
667	2,125	...	...	...	671 0 0	67	15	...	26	191	120 0 0	791 0 0	7,614 0 0
9	270	...	...	...	108 0 0	596	3,864	275	1,645	1,157	4,677 0 0	4,795 0 0	15,765 0 0
354	270	...	...	8	369 0 0	1,973	4,854	278	140	2,497	4,093 0 0	4,462 0 0	12,204 0 0
2,206	6,675	...	...	54	3,221 0 0	3,659	11,945	603	1,861	4,570	10,172 0 0	13,393 0 0	53,149 0 0
4,263	15,046	...	...	71	13,666 0 0	622,705		4,820	1,861	4,700	4,77,515 0 0	4,91,181 0 0	22,64,691 0 0

FORM No. 18.—*Artificial Reproduction in the Bombay Presidency, including Sind, during the year 1918-1919.*

Division.	Kind of Plantation.	Area in Acres.				Expenditure during the Year.		Total expenditure from commencement.		Revenue during the year.	Total revenue from date of creation of plantation.	Remarks.
		On 1st July 1918.	Added during the year.	Excluded during the year.	Area on 30th June 1919.	Creation.	Upkeep.	Creation.	Upkeep.			
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTHERN CIRCLE.						Rs.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
Panch Mahals ...	Regular plantations .	...	...	...	...	...	.....	...	...	...	...	
Surat ...	Do. ...	12	...	...	12	...	.....	...	50	...	...	
North Thána ...	Do. ...	145	41	...	186	1,356	4,907 0 0	3,513	11,401	136	161	
West do. ...	Do. ...	28	...	...	28	...	482 0 0	1,404	9,308	...	...	
East do. ...	Do. ...	71	...	...	71	409	.....	746	6	...	...	
	Total ...	256	41	...	297	1,765	5,389 0 0	5,663	20,765	136	161	
Panch Mahals ...	Cultural operations .	1,698	2,224	...	3,922	1,006	.....	...	...	...	...	
Surat ...	Do. ...	1,410	...	...	1,410	279	.....	...	...	...	...	
North Thána ...	Do. ...	1,829	1,417	...	3,246	961	.....	...	..	...	...	
West do. ...	Do. ...	2,338	3,117	...	5,455	1,996	.....	...	...	..	...	
East do. ...	Do. ...	229	439	...	668	1,406	.....	...	...	...	...	
West Násik ...	Do. ...	1,389	2,076	1,389	2,076	1,662	.....	...	...	...	...	
North do. ...	Do. ...	5,207	738	...	5,945	1,379	.....	...	...	...	...	
East do. ...	Do. ...	...	4	...	4	517	.....	...	...	...	...	
	Total ...	14,100	10,015	1,389	22,726	* 9,206	...	...	...	...	...	*Rs. 132 charged in the Direction account are not included.
	Total, Northern Circle.	14,356	10,056	1,389	23,023	* 10,971	5,389 0 0	5,663	20,765	136	161	
CENTRAL CIRCLE.												
East Khándesh ...	Regular plantations...	248	...	...	248	...	.....	...	...	...	...	
West do. ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
North do. ...	Do. ...	...	..	...	...	...	.....	...	...	...	...	
Poona ...	Do. ...	...	...	...	...	...	.....	...	...	...	...	
Sátára ...	Do. ...	262	6	...	268	...	.....	...	...	...	...	
Kolába ...	Do. ...	110	5	1	114	276	619 0 0	2,748	3,303	788	3,268	
	Total ...	620	11	1	630	276	619 0 0	2,748	3,303	788	3,268	
East Khándesh ...	Cultural operations ...	122	393	122	393	297	.....	...	...	...	...	
West do. ...	Do. ...	519	167 *614	519 ...	167 614	373	467 0 0	...	...	...	...	*Represent area under Agricum-forestry. †Rs. 68-6-6 were spent on actual plantation work. ‡The balance spent on the purchase of various kinds of seeds. ‡Rs. 24 incurred by the working Plans officer are not included.
North do. ...	Do. ...	...	314	...	314	†260	.....	...	...	...	...	
Poona ...	Do. ...	6,224	6,474	6,224	6,474	2,135	420 0 0	...	...	...	...	
Sátára ...	Do. ...	640	864	640	864	820	613 0 0	...	...	...	...	
Kolába ...	Do. ...	...	2,078	...	2,078	1,370	.....	...	...	...	...	
	Total ...	7,505	10,904	7,505	10,904	5,255	1,500 0 0	...	...	...	...	
	Total, Central Circle...	8,125	10,915	7,506	11,534	‡ 5,531	2,119 0 0	2,748	3,303	788	3,268	
SOUTHERN CIRCLE.												
Kánara Central...	Regular plantations .	180	...	...	180	...	1,231 0 0	2,211	12,891	1,766	1,766	
Do. Southern.	Do. ...	628	16 *13	76	581	2,145	.....	73,368	...	5,543	24,086	
Do. Western...	Do. ...	356	...	...	356	...	4,659 0 0	1,285	19,546	17,414	45,474	*Area previously omitted. *Transferred to the Revenue Department.
Belgaum ...	Do. ...	6	...	...	6	...	.....	36	78	...	...	
Dhárwár-Bijápur.	Do. ...	10	...	...	10	...	.....	43	...	24	560	
Ratnágiri ...	Do. ...	156	...	*156	...	...	26 0 0	4,120	3,810	...	6,865	
	Total ...	1,336	29	232	1,133	2,145	5,916 0 0	81,063	36,325	24,747	78,751	
Kánara, Northern.	Cultural operations ...	...	3,610	...	3,610	16,518	.....	...	...	...	...	
Do. Eastern .	Do. ...	17,830	6,015	17,830	6,015	27,381	.....	...	...	...	...	
Do. Central .	Do. ...	...	310	...	310	843	.....	...	...	...	...	
Do. Southern.	Do. ...	...	435	...	435	1,178	.....	...	...	...	...	
Do. Western.	Do. ...	...	2,885	...	2,885	7,913	.....	...	...	...	...	
Belgaum ...	Do. ...	...	3,030	...	3,030	8,297	.....	...	...	...	...	
Dhárwár-Bijápur.	Do. ...	2,049	3,344	2,049	3,334	1,009	.....	...	...	...	...	
	Total ...	19,879	19,629	19,879	19,629	63,139	.....	...	...	...	...	
	Total, Southern Circle	21,215	19,658	20,111	20,762	65,284	5,916 0 0	81,063	36,325	24,747	78,751	

FORM No. 18.—*Artificial Reproduction in the Bombay Presidency, including Sind, during the year 1918-1919.*

Division.	Kind of Plantation.	Area in Acres, On 1st July 1918.	Added during the year.	Excluded during the year.	Area on 30th June 1919.	Expenditure during the Year. Creation.	Upkeep.	Total expenditure from commencement. Creation.	Uckeep.	Revenue during the year.	Total revenue from date of creation of plantation.	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12	13
SIND CIRCLE.						Rs.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	
Sukkur ...	Regular plantations...	136	...	...	136	32	1,910 0 0	2,498	53,274	576	8,887	
Shikárpur ...	Do. ...	102	5	...	107	...	580 0 0	1,445	5,720	...	...	
Lárkána ...	Do. ..	14	2	...	16	...	300 0 0	54	2,448	...	...	
Hyderabad ...	Do. ..	33	...	...	33	22	962 0 0	1,061	13,788	245	4,829	
Karáchi ...	Do. ...	22	...	...	22	34	407 0 0	494	5,455	...	4	
	Total ...	307	7	...	314	88	4,159 0 0	5,552	80,685	815	13,720	
Sukkur ...	Cultural operations ...	6,495	383	2,329	4,549	...	.....	...	...	...	...	
Shikárpur ..	Do. ...	3,716	260	2,151	1,825	...	.....	...	...	...	...	*Rs. 311 charged in the Direction account are not included.
Lárkána ...	Do. ..	2,973	542	2,344	1,171	4	.....	...	...	...	...	
Hyderabad ...	Do. ..	73,93	1,889	2,426	6,856	4,282	.....	...	...	...	...	
Karáchi ...	Do. ...	17,615	895	413	18,097	796	.....	...	...	10	10	
	Total ...	38,192	3,969	9,663	32,498	5,082	.....	...	...	10	10	
	Total, Sind Circle ...	38,499	3,976	9,663	32,812	5,170*	4,159 0 0	5,552	80,685	825	13,730	
GRAND TOTAL, PRESIDENCY.	Regular plantations...	2,519	88	233	2,374	4,274	16,083 0 0	95,026	1,41,078	26,486	95,900	
	Cultural operations ...	79,676	44,517	38,436	85,757	82,682	1,500 0 0	...	...	10	10	
	Total ...	82,195	44,605	38,669	88,131	86,956	17,583 0 0	95,026	1,41,078	26,496	95,910	

FORM No. 19.—*Outturn (in cubic feet, solid) of Timber and Fuel*

Division.	TIMBER IN THE ROUGH, LOGS.					TIMBER IN THE ROUGH, POLES.					SAWN OR SQUARE TIMBER.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
NORTHERN CIRCLE.															
Reserved Forests.															
Panch Mahála	...	10	...	...	10	...	295	...	...	295	...	...	...	...	...
Surat	...	7	1	...	8	...	28	...	...	28	...	...	...	..	...
North Thána	...	16	...	...	16	115	576	...	...	691	...	...	...	...	...
West Thána	1	58	...	...	59	...	96	...	...	96	...	15	...	...	15
East Thána	...	127	...	...	127	8	87	1	...	96	...	4	...	...	4
West Násik	2	139	...	...	141	...	89	...	...	89	...	...		...	...
North Násik	...	...	...	...	...	...	40	2	...	42	...	...	...	...	...
East Násik	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...
Total, Reserved Forests ...	3	357	1	...	361	123	1,213	3	...	1,339	...	19	...	...	19
Protected Forests.															
North Thána	...	11	...	...	11	...	181	...	...	181	...	...	...	...	...
West Thána	...	13	4	..	17	4	26	...	...	30	2	5	...	...	7
East Thána	...	7	...	...	7	...	14	...	...	14	...	1	...	...	1
West Násik	...	34	...	...	34	...	9	...	...	9	..	...	...	...	...
Total, Protected Forests ...	...	65	4	...	69	4	230	...	...	234	2	6	...	...	8
Unclassed Forests.															
North Thána	...	...	...	...	...	...	19	...	...	19	...	...	...	...	...
Leased Forest.															
Surat	3	105	...	57	165	...	7	...	...	7	182	...	...	...	182
Total, Northern Circle ...	6	527	5	57	595	127	1,469	3	...	1,599	184	25	...	...	209

during the year 1918-1919, and Agency of Exploitation.

Miscellaneous.					Total Timber.					Fuel.					Total Outturn.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	...	305	...	...	305	...	1,113	...	1,467	2,580	2,885
...	...	...	...	...	...	35	1	...	36	...	119	...	25	144	180
...	...	...	...	...	115	592	...	...	707	206	951	...	1,074	2,231	2,938
...	28	...	...	28	1	197	...	...	198	...	1,174	...	325	1,499	1,697
...	...	...	...	...	8	218	1	...	227	62	627	...	1,576	2,265	2,492
...	...	...	...	...	2	228	...	...	230	64	213	...	1,825	2,102	2,332
...	...	...	...	...	...	40	2	...	42	...	52	...	...	52	94
...	...	...	...	...	...	2	...	...	2	...	27	...	...	27	29
...	28	...	...	28	126	1,617	4	...	1,747	332	4,276	...	6,292	10,900	12,647
...	...	...	...	...	...	192	...	...	192	...	227	...	500	727	919
...	9	...	...	9	6	53	4	...	63	8	51	...	22	81	144
...	...	...	...	...	...	22	...	...	22	...	16	...	...	16	38
...	...	...	...	...	...	43	...	...	43	...	...	...	...	...	43
...	9	...	...	9	6	310	4	...	320	8	294	...	522	824	1,144
...	...	...	...	...	...	19	...	...	19	...	...	...	...	...	19
...	...	...	...	...	185	112	...	57	354	...	...	...	1,500	1,500	1,854
...	37	...	...	37	317	2,058	8	57	2,440	340	4,570	...	8,314	13,224	15,664

FORM No. 19.—*Outturn (of cubic feet, solid) of Timber and Fuel*

Division.	Timber in the rough, Logs.					Timber in the rough, Poles.					Sawn or Squared Timber.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Thousands of	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C.ft.	C.ft.	C. ft.
CENTRAL CIRCLE.															
Reserved Forests.															
East Khándesh	...	...	...	...	...	13	118	2	...	133	...	...	...	...	...
West Khándesh	4	11	...	...	15	...	282	2	...	284	...	6	...	...	6
North Kándesh	...	2	...	...	2	1	16	...	...	17	...	32	...	...	32
Kolába	...	5	...	...	5	...	146	2	...	148	...	...	...	...	...
Poona	...	10	...	...	10	1	237	1	...	239	...	...	...	...	...
Sátára	...	...	...	...	...	1	26	11	...	38	...	...	...	...	...
Total, Central Circle ...	4	28	...	...	32	16	825	18	...	859	...	38	...	...	38

during the year 1918-1919, and Agency of Exploitation—continued.

Miscellaneous.					Total Timber.					Fuel.					Total.
Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	13	118	2	...	133	30	290	1	13	334	467
...	...	...	...	...	4	299	2	...	305	...	824	...	25	849	1,154
...	5	1	...	6	1	55	1	...	57	...	108	5	32	145	202
1	81	...	...	82	1	232	2	...	235	44	1,400	...	911	2,355	2,590
...	2	...	...	2	1	249	1	...	251	98	139	1	...	238	539
...	...	...	...	...	1	26	11	...	38	104	63	...	...	167	205
1	88	1	...	90	21	979	19	...	1,019	276	2,874	7	981	4,138	5,157

FORM No. 19.—*Outturn (in thousands of cubic feet, solid) of Timber and Fuel*

Division. *(As readjusted on 1st February 1916 as per Government Order No. 11396 of 27th October 1915, Revenue Department).	Timber in the rough: Logs.					Timber in the rough: Poles.				
	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11
Thousands of	C. ft.	C. ft.	C. ft.	C.ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SOUTHERN CIRCLE.										
Reserved forests.										
Kánara, Northern	465	43	1	...	509	168	309	...	...	477
Kánara, Eastern	203	31	2	...	236	11	100	...	...	111
Kánara, Central	269	51	3	...	323	1	2	1	...	4
Kánara, Southern	12	54	2	...	68	...	...	...	...	...
Kánara, Western	123	74	11	...	208	26	...	...	...	26
Belgaum	55	108	...	...	163	38	55	5	...	98
Dhárwár-Bijápur	...	...	...	...	...	1	20	...	...	21
Total, Southern Circle ...	1,127	361	19	...	1,507	245	486	6	...	737

Sawn or Square Timber.					Miscellaneous.		
Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C.ft.	C.ft.	C. ft.		C. ft.	
203	...	...	...	203	..... Sandalwood— Kds. mds. lbs. 18 13 22	.....	.....
87	...	...	...	87	..... Sandalwood— Kds. mds. lbs. 38 7 10	.....	.....
12	...	...	...	12	..... Sandalwood— Kds. mds. lbs. 14 6 6½	.....	.....
1	...	...	...	1	..... Sandalwood— Kds. mds. lbs. 11 16 16	.....	.....
18	...	...	...	18	1	2	.....
8	6	...	...	14	..... Sandalwood— Kds. mds. lbs. 71 0 7	.....	.....
...	...	...	...	...	..... Sandalwood— Kds. mds. lbs. 37 17 9 20 carts chips. 804 rejected trees, and pieces. 35 bags chips.	.....	.....
329	6	...	...	335	1 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 804 rejected trees, and pieces. 35 bags chips.	2	.....

Miscellaneous—*continued.*		Total Timber.		
Right-holders.	Total.	Government.	Purchasers.	Free Grantees
20	21	22	23	24
	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	836	352	1
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	18 13 22	18 13 22		
.....	.....	301	131	2
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	38 7 10	38 7 10		
.....	.....	282	53	4
	Sandalwood—			
	Kds. mds. lbs.			
	14 6 6½			
.....	.....	13	54	2
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	11 16 16	11 16 16		
.....	3	168	76	11
.....	.....	101	169	5
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	71 0 7	71 0 7		
.....	.....	1	20	.....
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	37 17 9	37 17 9		
	20 carts chips.	20 carts chips.		
	804 rejected trees, and pieces.			
	35 bags chips.			
.....	3	1,702	855	25
	Sandalwood—	Sandalwood—		
	Kds. mds. lbs.	Kds. mds. lbs.		
	192 1 14½	192 1 14½		
	20 carts chips.	20 carts chips.		
	804 rejected trees, and pieces.	804 rejected trees, and pieces.		
	35 bags chips.	35 bags chips.		

during the year 1918-1919 and Agency of Exploitation—continued.

Total Timber—*continued.*		Fuel.					
Right-holders.	Total	Government.	Purchasers.	Free Grantees	Right-holders.	Total.	Total Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	1,189 Sandalwood— Kds. mds. lbs. 18 13 22	455	569	...	...	1,024	2,213 Sandalwood— Kds.. mds. lbs. 18 13 22
.....	434 Sandalwood— Kds. mds. lbs. 38 7 10	...	199	33	...	232	666 Sandalwood— Kds. mds. lbs. 38 7 10
.....	339 Sandalwood— Kds. mds lbs. 14 6 6½	351	631	10	...	992	1,331 Sandalwood— Kds. mds. lbs. 14 6 6½
.....	69 Sandalwood— Kds. mds. lbs. 11 16 16	8	495	4	...	507	576 Sandalwood— Kds. mds. lbs. 11 16 16
.....	255	1,417	1,183	7	...	2,607	2,862
.....	275 Sandalwood— Kds. mds. lbs. 71 0 7	3,584	3,011	...	...	6,595	6,870 Sandalwood— Kds. mds. lbs. 71 0 7
.....	21 Sandalwood— Kds. mds. lbs. 37 17 9 20 carts chips 804 rejected trees, and pieces. 35 bags chips.	23	380	1	...	404	425 Sandalwood— Kds. mds. lbs. 37 17 9 20 carts chips. 804 rejected trees, and pieces. 35 bags chips.
.....	2,582 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 804 rejected trees, and pieces. 35 bags chips.	5,838	6,468	55	...	12,361	*14,943 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 804 rejected trees, and pieces. 35 bags chips.

*This is exclusive of 300 thousand c. ft. of timber and 3,042 thousand c. ft. of fuel shown under privilege holders in chapter II, section V (*c*)—Outturn and sources of forest produce—Figures under "Government and Free Grantees" are actuals—Figures under Purchasers are estimates arrived at from contractor's records. Figures under "Right-holders" are very rough estimates.

FORM No. 19.—*Outturn (in cubic feet, solid) in thousands of Timber and Fuel*

Division.	Timber in the rough, Logs.					Timber in the rough, Poles.				
	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.
1	2	3	4	5	6	7	8	9	10	11
Thousands of	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
SIND CIRCLE.										
Sukkur	31	9	...	...	40	...	8	...	...	8
Shikárpur	1	4	...	...	5	...	5	1	...	6
Lárkána	10	14	...	...	24	...	22	1	...	23
Hyderabad	...	14	...	...	14	...	...	...	...	...
Karáchi	5	18	...	...	23	...	54	1	...	55
Total, Sind Circle ...	47	59	...	...	106	...	89	3	...	92
GRAND TOTAL, PRESIDENCY ..	1,184	975	24	57	2,240	388	2,869	30	...	3,287

Sawn or Square Timber.					Miscellaneous.		
Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.
12	13	14	15	16	17	18	19
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
...	...	...	...	...	.....	.....	.....
...	...	...	...	...	.....	.....	.....
...	...	..	...	...	.....	1	.....
...	...	..	...	...	.....	.....	.....
...	...	...	...	...	.....	.....	.....
...	...	...	...	...	.....	1	.....
513	69	...	...	582	2 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 35 bags chips. 804 rejected trees, and pieces.	128	

Miscellaneous—*continued.*		Total timber.		
Right-holders.	Total.	Government.	Purchasers.	Free Grantees.
20	21	22	23	24
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	.....	31	17	.....
.....	.....	1	9	1
.....	1	10	37	1
.....	.....	.....	14	.....
.....	.....	5	72	1
.....	1	47	149	3
.....	131 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 35 bags chips. 804 rejected trees, and pieces.	2,087 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 35 bags chips. 804 rejected trees, and pieces.	4,041	55

during the year 1918-1919 and Agency of Exploitation—concluded.

Total Timber—*continued.*		Fuel.					Total.
Right-holders.	Total.	Government.	Purchaser.	Free Grantees.	Right-holders.	Total.	Outturn.
25	26	27	28	29	30	31	32
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
.....	48	77	5,203	1	...	5,281	5,329
.....	11	5	1,654	4	...	1,663	1,674
.....	48	97	1,581	...	8	1,686	1,734
.....	14	151	5,979	...	...	6,130	6,144
.....	78	659	5,506	...	...	6,165	6,243
.....	199	989	19,923	5	8	20,925	21,124
57	6,240 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 35 bags chips. 804 rejected trees, and pieces.	7,443	33,835	67	9,303	50,648	56,888 Sandalwood— Kds. mds. lbs. 192 1 14½ 20 carts chips. 35 bags chips. 804 rejected trees, and pieces.

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1918-1919.*

Description of Produce.	Produce removed or utilized.									
	By Government Agency.		By Purchasers.		By Free-grantees.		By Right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
NORTHERN CIRCLE.		Rs.		Rs.		Rs.		Rs.		Rs.
Reserved Forests.										
Apta Temburni leaves	.....	...	...	20,720	...	...	...	...	.....	20,720
Bámboos	.....	17,042	...	32,393	...	90	...	5,000	.....	54,525
Chilhari bark	.....	...	...	305	...	...	...	...	.....	305
Gum	... ..	...	...	235	...	...	...	...	.....	235
Ghat bor	.....	..	...	95	...	...	...	.	.....	95
Grass and grazing	.....	58,449	...	92,563	...	...	...	2,75,000	.....	4,26,012
Hirda	.....	...	...	2,970	...	...	...	...	.....	2,970
Karvi	.....	...	...	2,387	...	...	...	...	.....	2,387
Manure	.....	...	...	70	...	...	...	...	.....	70
Royalty on Managnese ore	... ..	...	...	1,131	...	...	...	...	.....	1,131
Mhowra seed and flowers	.....	758	...	1,293	...	...	...	...	.....	2,051
Palm leaves	.....	...	...	1,354	...	...	...	...	.....	1,354
Sali and Mand wood	.....	...	...	33	...	...	...	...	.....	33
Stones	... ..	...	...	208	...	...	...	...	.....	208
Tarwad bark and seed	.....	...	...	8,101	...	...	...	...	.....	8,101
Thorns	... ..	...	...	488	...	...	...	...	.....	488
Miscellaneous	.....	...	...	382	...	...	...	90,000	.....	90,382
Total,	.....	76,249	...	1,64,728	...	90	...	3,70,000	.....	6,11,067
Protected Forests.										
Grass and grazing	.....	...	...	.....	...	...	...	72,000	.....	72,000
Miscellaneous	.....	...	...	150	...	...	...	2,000	.....	2,150
Total	.....	...	...	150	...	...	...	74,000	.....	74,150
Leased Forests.										
Apta Temburni	.....	...	...	360	...	...	...	...	.....	360
Bamboos	.....	..	...	.....	...	...	...	7,000	.....	7,000
Grass and grazing	.....	...	...	1,992	...	...	...	32,000	.....	33,992
Mhowra seed and flowers	.....	...	...	1,709	...	...	...	...	.....	1,709
Miscellaneous	.....	...	...	.....	...	...	...	14,000	.....	14,000
Total,	.....	...	...	4,061	...	...	...	53,000	.....	57,061
Total, Northern Circle	.....	76,249	...	1,68,939	...	90	...	4,97,000	.....	7,42,278
CENTRAL CIRCLE.										
Reserved Forest.										
Hirda and Shikekái	.....	5,769	...	10,960	...	...	...	...	.....	16,729
Mhowra seed	.....	4,275	...	2,478	...	...	...	...	.....	6,753
Rosha grass	.....	...	...	3,970	...	...	...	...	.....	3,970
Leaves, pods, bark, etc.	.....	...	...	15,555	...	...	...	...	.....	15,555
Fruits	.....	...	...	4,380	...	...	...	2,500	.....	6,880
Earth, stone, murrum, etc.	.....	...	...	1,548	...	169	...	48	.....	1,765
Grass and Grazing	.....	...	...	3,60,263	...	10,021	...	53,019	.....	4,23,303
Bamboos	.....	...	...	10,663	...	87	...	...	.....	10,750
Tarwad	.....	...	...	4,445	...	...	...	...	.....	4,445
Aloe	.....	...	...	413	...	...	...	...	.....	413
Miscellaneous	.....	751	...	1,937	...	37	...	20	.....	2,745
Total	.....	10,795	...	4,16,612	...	10,314	...	55,587	.....	4,93,308
Protected Forests.										
Stones	... ..	...	...	127	...	...	...	...	.....	127
Grass and Grazing	.....	...	...	53	...	...	...	...	.....	53
Total	.....	...	...	180	...	...	...	...	.....	180
Leased Forest.										
Grass and grazing	.....	...	...	323	...	...	...	...	.....	323
Total, Central Circle	.....	10,795	...	4,17,115	...	10,314	...	55,587	.....	4,93,811

FORM No. 20.—*Outturn of Minor Forest Produce during the year 1918-1919*—continued.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
	By Government Agency.		By Purchasers.		By Free-grantees.		By Right-holders.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11
SOUTHERN CIRCLE.— *Reserved Forests.*		Rs.		Rs.		Rs.		Rs.		Rs.
Bamboos	...	69,047	34,03,215	41,270	97,500	1,027	...	..	.....	1,11,344
Grass and Grazing	...	55,414	.....	75,830	...	16,124	...	...	.....	1,47,368
Harda, Shigekái, Honey, Wax, Cinnamon, Nux-vomica, surgi flowers, Pepper, Ramphal and Ramapatri, Hulgal (Karangi) Seed, Ambehalad.	...	594	.....	19,615	...	...	...	...	.....	20,209
Quarrying fees	...	...	.....	5,790	...	...	...	...	.....	5,790
Tapping fees	...	...	1,152	576	...	...	...	...	.....	576
Stones carts	...	...	4,110	749	...	38	...	...	.....	787
Tali palm trees	...	...	469	469	...	...	...	...	.....	469
Baini trees	...	...	.....	3,241	...	190	...	...	.....	3,431
Silk cotton	...	75	.....	.....	...	...	...	...	.....	75
Supari trees	382	573	.....	.....	...	...	...	...	.....	573
Kallatti leaves	...	...	.....	1	...	...	...	...	.....	1
Palm leaves	...	...	.....	811	...	20	...	...	.....	831
Shindoli leaves	...	...	.....	34	...	...	...	...	.....	34
Tumri leaves	...	...	.....	3,808	...	...	...	...	.....	3,808
Soppu (green leaves for manure).	...	...	.....	3	...	...	...	...	.....	3
Mangoes, Cashew fruits, Jack fruits and Beri fruits and leaves.	...	...	.....	114	...	...	...	...	.....	114
Tamarind fruits	...	...	.....	31	...	...	...	...	.....	31
Shave farm	...	...	.....	100	...	...	...	...	.....	100
Muram, metal, sand and earth.	...	...	.....	86	...	404	...	...	.....	490
Lime stone	...	...	.....	1	...	...	...	...	.....	1
Bábul pods	...	...	.....	1,009	...	...	...	...	.....	1,009
Wawding	...	...	.....	25	...	...	...	...	.....	25
Dagadful	...	...	.....	120	...	...	...	...	.....	120
Taikila seed	...	...	.....	60	...	...	...	...	.....	60
Fencing stakes	...	...	3,308	24	...	33	...	...	.....	57
Chandrapit	...	...	.....	135	...	...	...	...	.....	135
Prickly pear	...	...	.....	20	...	...	...	...	.....	20
Broom grass	...	...	.....	176	...	...	...	...	.....	176
Bark	...	...	.....	1	...	...	...	...	.....	1
Creepers head loads	...	...	320	48	...	8	...	...	.....	56
Thorns	...	...	.....	160	...	12	...	...	.....	172
Gum	...	...	.....	1,042	...	...	...	...	.....	1,042
Banadurbi	...	...	.....	453	...	...	...	...	.....	453
Tarwad bark	Md. lbs. 1,131-65	1,547	.....	14,008	...	...	...	...	.....	15,555
Canes	...	...	.....	521	...	50	...	...	.....	571
Karvi	...	...	.....	234	...	...	...	...	.....	234
Skins and horns	...	...	.....	26	...	...	...	...	.....	26
Total, Southern Circle	...	1,27,250	.....	1,70,591	...	17,906	...	...	.....	.....
SIND CIRCLE. *Reserved Forests.*										
Vegetables, fruit and flowers.	...	137	.....	.....	...	...	...	...	.....	137
Rahuja garden	...	...	.....	570	...	...	...	...	.....	570
Babul and lye seed	...	68	.....	58	...	...	...	...	.....	126
Sar-reed	...	...	.....	2,136	...	...	...	...	.....	2,136
Lopping of Bahan and Babul and Kandi branches.	...	...	.....	16	...	...	...	...	.....	16
Sar & kant grass	...	...	.....	2,026	8 carts.	1	...	...	.....	2,027
Babul and Kaudi pods	...	1,304	.....	28,039	...	...	...	...	.....	29,343
Pabun and Bih	...	...	.....	506	...	...	...	...	.....	506
Value of seed removed from Maldars, etc.	...	...	.....	526	...	...	...	...	.....	526
Grazing	...	...	.....	40,071	...	10,171	...	3,221	.....	53,463
Mango fruit	...	225	.....	193	...	...	...	...	.....	418
Ber fruit	...	...	.....	9	...	...	...	...	.....	9
Date palm	...	...	.....	7	...	...	...	...	.....	7
Damage to coppice shoots	...	..	.....	45	...	...	...	...	.....	45
Lac	...	28	.....	16,355	...	...	...	...	.....	16,383
Jaw brushwood	...	...	.....	59	...	...	...	...	.....	59
Kamo creeper	...	...	.....	104	...	...	...	...	.....	104
Total, Sind Circle	...	1,762	.....	90,720	...	10,172	...	3,221	.....	1,05,875
GRAND TOTAL	...	2,16,056	.....	8,47,365	...	38,482	...	5,55,808	.....	16,57,711

* This is exclusive of Rs. 62,163 on account of Sandalwood shown under Government Agency and Rs. 15,000, Rs. 1,80,000 and Rs. 3,00,387 on account of Bamboos, Minor Forest Produce and Grazing shown under Privilege holders in the statement in Chapter II, Section V (*c*) outturn and Sources of forest produce.

FORM No. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1918-1919.*

Name of Division.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
NORTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Surat	98,405	1,85,065	2,83,470	2,49,688	33,782
North Thána	22,378	1,14,592	1,36,970	1,12,117	24,853
West Thána	...	7,629	7,629	7,629	...
East Thána	...	7,801	7,801	7,395	406
West Násik	610	3,168	3,778	3,778	...
North Násik	...	66	66	66	...
Sandalwood.					
East Násik	...	38	38	38	...
Total ...	1,21,393	3,18,359	4,39,752	3,80,711	59,041
Fuel.					
Surat	5,524	...	5,524	5,524	...
North Thána	56,560	2,05,905	2,62,465	2,38,583	23,882
West Thána	...	8,720	8,720	8,720	...
East Thána	...	61,995	61,995	50,854	11,141
West Násik	18,125	64,415	82,540	24,139	58,401
North Násik	...	40	40	40	...
Total ...	80,209	3,41,075	4,21,284	3,27,860	93,424
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction ...	130	...	130	130	...
Panch Mahâls ...	70	334	404	404	...
Surat ...	1,453	61,783	63,236	58,863	4,373
North Thána ...	...	10,166	10,166	10,166	...
West Thána ...	5,781	...	5,781	5,781	...
East Thána ...	...	1,035	1,035	1,035	...
North Násik ...	10	...	10	10	...
East Násik ...	330	...	330	330	...
Total ...	7,774	73,318	81,092	76,719	4,373
Total, Northern Circle ...	C. ft. 2,01,602 + Rs. 7,774	C. ft. 6,59,434 + Rs. 73,318	C. ft. 8,61,036 + Rs. 81,092	C. ft. 7,08,571 + Rs. 76,719	C. ft. 1,52,465 + Rs. 4,373
CENTRAL CIRCLE.					
Timber.					
Teak.					
East Khándesh	8,304	12,671	20,975	17,959	3,016
North Khándesh	8	1,109	1,117	1,117	...
Kolaba	...	966	966	248	718
Poona	2,292	1,269	3,561	1,701	1,860
Sátára	...	1,161	1,161	1,161	...
Total ...	10'604	17,176	27,780	22,186	5,594
Injaili.					
West Khándesh	...	3,926	3,926	3,926	...
Total ...	10,604	21,102	31,706	26,112	5,594
Firewood.					
East Khándesh	9,220	29,828	39,048	30,193	8,855
North Khándesh	68	...	68	39	29
Kolaba	16,014	43,622	59,636	43,128	16,508
Poona	12,191	97,788	1,09,979	1,08,864	1,115
Sátára	1,07,300	1,04,200	2,11,500	84,703	1,26,797
Total ...	1,44,793	2,75,438	4,20,231	2,66,927	1,53,304
Mhowra.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
West Khándesh	29,122	65,989	95,111	67,409	27,702
North Khándesh	19,517	{ 48,835 813	68,352 813	42,567 813	} 25,785
Total ...	48,639	1,15,637	1,64,276	1,10,789	53,487
Minor Forest Produce.					
		Rs.	Rs.	Rs.	
West Khándesh	...	4,274	4,274	4,274	...
Poona	...	5,769	5,769	5,769	...
Sátara	...	753	753	753	...
Total ...	...	10,796	10,796	10,796	...
Total, Central Circle ...	C. ft 1,55,397 Lbs. 48,639 Rs. ...	C. ft. 2,96,540 Lbs. 1,15,637 Rs. 10,796	C. ft. 4,51,937 Lbs. 1,64,276 Rs. 10,796	C. ft. 2,93,039 Lbs. 1,10,789 Rs. 10,796	C. ft. 1,58,898 Lbs. 53,487 Rs. ...

Name of Division.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Kánara, Northern Division—					
Teak	185,055	578,371	763,426	331,246	433,080
Blackwood	30,366	16,297	46,663	1,684	44,979
Junglewood	115,786	241,518	357,304	86,655	270,649
Total ...	332,107	836,186	1,168,293	419,585	748,708
Kánara, Eastern Division—					
Teak	164,942	223,300	388,242	162,090	226,152
Blackwood	1,979	895	2,874	2,472	402
Junglewood	53,076	77,523	130,599	85,925	44,674
Total ...	219,997	301,718	521,715	250,487	271,228
Kánara, Central Division—					
Teak	19,540	15,524	35,064	14,689	20,375
Blackwood	5,197	6,933	12,130	5,641	6,489
Junglewood	406,471	259,113	665,584	433,788	231,796
Total ...	431,208	281,570	712,778	454,118	258,660
Kánara, Southern Division—					
Teak	12,850	3,494	16,344	4,185	12,159
Blackwood	.....	277	277	...	277
Junglewood	39,810	9,209	49,069	5,932	43,137
Total ...	52,660	13,030	65,690	10,117	55,573
Kánara, Western Division—					
Teak	13,167	36,148	49,315	33,304	16,011
Blackwood	1,404	1,209	2,613	2,023	590
Junglewood	196,280	130,137	326,417	261,661	64,756
Total ...	210,851	167,494	378,345	296,988	81,357
Belgaum Division—					
Teak	8,323	26,203	34,526	6,426	28,100
Blackwood	2,745	5,793	8,538	1,402	7,136
Junglewood	12,246	69,466	81,712	11,876	69,836
Total ...	23,314	101,462	124,776	19,704	105,072
Dhárwár—Bijápur Division—					
Junglewood	25	294	319	...	319
Total ...	25	294	319	...	319
Total, Timber—					
Teak	404,777	883,040	1,287,817	551,940	735,877
Blackwood	41,691	31,404	73,095	13,222	59,873
Junglewood	823,694	787,310	1,611,004	885,837	725,167
Total ...	1,270,162	1,701,754	2,971,916	1,450,999	1,520,917
Fuel.					
Kánara, Northern Division ...	14,590	454,891	469,481	198,649	270,832
Kánara, Eastern Division ...	.....	...	...	...	...
Kánara, Central do. ...	131,955	351,500	483,455	458,755	24,700
Kánara, Southern do. ...	170,394	7,507	177,901	96,637	81,264
Kánara, Western do. ...	566,082	1,417,218	1,983,300	1,636,789	346,511
Belgaum do. ...	505,185	3,584,062	4,089,247	3,147,951	941,296
Dhárwár-Bijápur ...	1,432	23,015	24,447	24,447	...
Total ...	1,389,638	5,838,193	7,227,831	5,563,228	1,664,603

FORM NO. 21.—*Account of Timber and other Produce cut or collected by Government Agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1918-1919*—concluded.

Name of Division.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SOUTHERN CIRCLE —*continued.*	Rs.	Rs.	Rs.	Rs.	Rs.
Bamboos.					
Kánara, Northern Division ...Value.	...	1,016	1,016	1,016	...
Kánara, Eastern Division ... ,,	...	576	576	576	...
Kánara Central Division ... ,,	20 622	2,720	23,342	21,637	1,705
Kánara Southern Division ... ,,	9,000	...	9,000	4,389	4,611
Kánara, Western Division ... ,,	20,672	5,432	26,104	26,099	5
Belgaum Division ... ,,	...	15,330	15,330	15,330	...
Dhárwár-Bijápur Division ... ,,	...	...	...	...	...
Total ...Value.	50,294	25,074	75,368	69,047	6,321
Sandalwood.					
Kánara, Northern Division ...Value.	...	6,488	6,488	6,488	...
Kánara, Eastern Division ... ,,	...	18,064	18,064	18,064	...
Kánara, Central Division ... ,,	...	6,545	6,545	6,545	...
Kánara, Southern Division ... ,,	50	5,512	5,562	5,54	15
Belgaum Division ... ,,	1,570	10,653	12,223	9,873	2,350
Dhárwár-Bijápur Division ... ,,	457	15,354	15,811	15,646	165
Total ...Value.	2,077	62,616	64,693	62,163	2,530
Minor Forest Produce.					
Kánara Northern Division ...Value.	...	2,237	2,237	715	1,522
Kánara, Eastern Division ... ,,	1,323	3,640	4,963	472	4,491
Kánara Central Division ... ,,	...	573	573	573	...
Belgaum Division ,,	3	54,803	54,806	54,806	...
Dhárwár-Bijápur Division ... ,,	430	1,257	1,687	1,637	50
Total ...Value.	1,756	62,510	64,266	58,203	6,063
Drift and waif wood and confiscated Forest Produce.					
Kánara, Northern Division ...Value.	...	...	...	...	...
Kánara, Eastern Division ... ,,	...	...	...	...	...
Kánara, Central Division ... ,,	70	31	101	2	99
Kánara, Southern Division ... ,,	...	...	...	...	...
Kánara, Western Division ... ,,	...	...	...	...	...
Belgaum Division ... ,,	30	109	139	139	...
Dhárwár-Bijápur Division ... ,,	...	19	19	17	2
Total ...	100	159	259	158	101
Total, Southern Circle ...	C. ft. 2,659,800 Rs. 54,227	C. ft. 7,539,947 Rs. 150,359	C. ft. 10,199,747 Rs. 204,586	C. ft. 7,014,227 Rs. 183,571	C. ft. 3,185,520 Rs. 15,015

Name of Division.	Balance at commencement of the year in Forests and Sale Depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in Forests and Sale Depôts.
1	2	3	4	5	6
SIND CIRCLE.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber.					
Sukkur	15	30,878	30,893	30,797	96
Shikarpur	117	658	775	352	423
Lárkána	32	10,811	10,843	10,843	...
Hyderabad	86	24	110	90	20
Karáchi	2,643	5,026	7,669	7,552	117
Total ...	2,893	47,39	50,290	49,634	656
Fuel.					
Sukkur	.....	77,580	77,580	77,580	...
Shikarpur	.....	4,540	4,540	3,932	608
Lárkána	11,250	96,745	107,995	107,995	...
Hyderabad	17,147	151,398	168,545	79,474	89,071
Karáchi	326,528	659,080	985,608	741,053	244,555
Total ...	354,925	989,343	1,344,268	1,010,034	334,234
Minor Forest Produce.	Rs.	Rs.	Rs.	Rs.	Rs.
Sukkur ...Value.	35	796	831	353	478
Shikarpur ... ,,	26	690	716	288	428
Lárkána ... ,,	2	775	777	585	192
Hyderabad ... ,,	301	3,997	4,298	2,020	2,278
Karáchi ... ,,	72	1,030	1,102	562	540
Total ...Value	436	7,288	7,724	3,808	3,916
Total, Sind Circle ...	C. ft. 357,818 Rs. 436	C. ft. 1,036,740 Rs. 7,288	C. ft. 1,394,558 Rs. 7,724	C. ft. 1,059,668 Rs 3,808	C. ft. 334,890 Rs. 3,916
GRAND TOTAL, PRESIDENCY...	C. ft. 3,374,617 Lbs. 4[illegible],639 Rs. 62,437	C. ft. 9,532,661 Lbs. 1,15,637 Rs. 2,41,761	C. ft. 12,907,278 Lbs. 164,276 Rs. 3,04,198	C. ft. 9,075,505 Lbs 1,1 ,789 Rs. 2,80,894	C. ft. 3,831,773 Lbs. 53,487 Rs. 23,304

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1918-1919.*

Description of Timber and other Forest Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
NORTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Timber	...	121,393	1,21,556	...	59,041	87,836	...	33,720	
Fuel	...	80,209	7,567	...	93,424	18,426	10,859	...	
Minor Forest Produce ...	...	... ...	7,774	...	.....	4,373	...	3,401	
Total, Northern Circle ...	...	.....	1,36,897	...	.....	1,10,635	10,859	37,121	Net difference against the year—Rs. 26,262.
CENTRAL CIRCLE.									
Timber	...	10,604	4,089	...	5,594	2,091	...	1,998	
Firewood	...	144,793	10,480	...	1,53,304	10,444	...	36	
Mhowra	...	Lbs. 48,639	7,866	...	Lbs. 53,487	2,617	...	5,249	
Total, Central Circle ...	...	.....	22,435	...	.....	15,152	...	7,283	Net difference against the year—Rs. 7,283.

FORM No. 22.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1918-1919*—concluded.

Description of Timber and other Forest Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Timber.									
Teak	115,093	404,777	6,52,437	209,117	735,877	14,68,477	...	...	
Blackwood	7,026	41,691	41,667	11,571	59,873	89,576	...	...	
Junglewood	166,921	823,694	8,48,574	66,585	725,167	8,35,289	...	...	
Total, Timber ...	289,044	1,270,162	15,42,678	287,273	1,520,917	23,93,342	8,50,664	...	
Fuel	...	1,389,638	1,22,826	...	1,664,603	1,29,821	6,995	...	
Pambcos ... ... Value.	...	...	50,294	...	...	6,321	...	43,973	
Sandalwood ... ... Value.	...	...	2,077	...	...	2,530	453	...	
Minor Forest Produce ... Value.	...	...	1,756	...	...	6,063	4,307	...	
Confiscated Forest Produce „	...	...	100	...	...	101	1	...	
Total, Southern Circle ...	...	...	17,19,731	...	...	25,38,178	8,62,420	43,973	Net difference in favour of the year—Rs. 8,18,447.
SIND CIRCLE.									
Timber	474	2,893	490	1,735	656	94	...	396	
Fuel	...	354,295	23,011	...	334,234	17,943	...	5,068	
Minor Produce	...	...	436	...	...	3,916	3,480	...	
Total, Sind Circle ...	...	...	23,937	...	...	21,953	3,480	5,464	Net difference against the year—Rs. 1,984.
GRAND TOTAL, PRESIDENCY ...	...	...	19,03,000	...	...	26,85,918	8,76,759	93,841	Net difference in favour of the year—Rs. 7,82,918.

FORM No. 23.—*Abstract showing the value of Live and Dead Stock for the year 1918-19.*

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Bullocks	3	294	3	250	...	44	Depreciation @ 15 per cent.
Dead Stock.							
Buildings	299	3,35,581	321	3,93,447	57,866	...	
Copying machines	8	...	8	...	...	...	
Cyclostyles	7	...	7	...	...	...	
Carts	7	133	7	126	...	7	
Hay presses	12	...	67	85,775	85,775	...	
Rosha plant	...	...	1	4,150	4,150	...	
Steel wire ropes	12	...	12	...	...	...	
Typewriters, Empire	1	200	1	190	...	10	
Typewriters, Remington	6	...	7	...	...	...	
Typewriter, Hammond	3	960	5*	1,552	592	...	* 2 new purchased and 2 old ones sold.
Tents and Rahutis	34	4,400	34	4,780	380	...	
Fowler train	1	31,578	1	30,000	...	1,578	
Saw sharpening machine	1	300	1	285	...	15	
Clips	38	...	38	...	...	...	
Small spanners	6	...	6	...	...	...	
Large do.	2	...	2	...	...	...	
Big bolts	9	...	9	...	...	...	
Office furniture, etc.	...	36,684	...	38,572	1,888	...	
Total, Dead Stock ...	446	4,09,836	527	5,58,877	1,50,651	1,610	
TOTAL, NORTHERN CIRCLE ...	449	4,10,130	530	5,59,127	1,50,651	1,654	Net difference in favour of the year—Rs. 1,48,997.
CENTRAL CIRCLE.							
Dead Stock.			*Live Stock*—Nil.				
Buildings	156	1,88,889	162	1,90,356	1,467	...	
Tents	7	2,010	7	1,845	...	165	
Rahutis (Kabul Pal Fan)	27	2,168	27	1,961	...	207	
Tools, plant and office furniture ...	...	34,527	...	35,742	1,215	...	
Remington Typewriters	7	...	7	...	...	...	
Empire do.	4	...	4	...	...	...	
Copying machines	5	...	5	...	...	...	
Cyclostyles	4	...	4	...	...	...	
Yestograph duplicator	1	...	1	...	...	...	
Boat with fittings	1	1,371	1	1,285	...	86	
Boon with accessories	...	600	...	570	...	30	
Total, Dead Stock ...	212	2,29,565	218	2,31,759	2,682	488	Net difference in favour of the year —Rs. 2,194.
Total, Central Circle ...	212	2,29,565	218	2,31,759	2,682	488	

FORM No. 23.—*Abstract showing the value of the Live and Dead Stock for the year 1918-19*—concluded.

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	
SOUTHERN CIRCLE.		Rs.		Rs.	Rs.	Rs	
Live Stock.							
Buffaloes and bullocks ...	64	3,207	63	2,992	...	215	
Total, Live Stock ...	64	3,207	63	2,992	...	215	
Dead Stock.							
Buildings	368	2,97,241	349	3,04,852	7,611	...	
Tents	9	1,800	9	2,034	234	...	
Rahutis	22	1,169	24	1,418	249	...	
Tools, plant and office furniture ...	...	53,094	...	55,430	2,336	...	
Typewriters, Remington ...	1	...	1	...	...	...	
Do. Empire	2	...	2	...	...	...	
Do. Hammond ...	7	...	8	...	...	...	
Cyclostyles	8	...	8	...	...	...	
Trolly wheel set	...	...	1	119	119	...	
Carts	42	2,348	42	2,280	...	68	
Guns	5	170	5	162	...	8	
Bicycles	3	379	5	500	121	...	
Iron safes	10	675	10	617	...	58	
Monorail materials	...	16,611	...	16,030	...	581	
Saw-mills (steam power) ...	6	1,21,241	6	1,12,337	...	8,904	
Distillation plant	1	865	1	822	...	43	
Windlass	1	1,140	1	1,083	...	57	
Crab winch	1	47	1	44	...	3	
Total, Dead Stock ...	486	4,96,780	473	4,97,728	10,670	9,722	
Total, Southern Circle ...	550	4,99,987	539	5,00,720	10,670	9,937	Net difference in favour of the year—Rs. 733.
SIND CIRCLE.							
Live Stock.							
Bullocks	9	225	10	231	...	...	
Camels	34	1,360	33	1,277	...	...	
Total, Live Stock ...	43	1,585	43	1,508	...	77	
Dead Stock.							
Buildings	89	50,182	88	46,638	...	...	
Tents	14	2,954	14	2,768	...	...	
Stores, Mathematical ...	798	5,855	782	5,518	...	...	
Tools, plant and office furniture ...	3,160	15,980	3,101	15,939	...	...	
Remington Typewriters ...	8	...	8	...	...	...	
Copying machine	1	...	1	...	...	...	
Iron safes	1	201	1	191	...	...	
Bicycles	2	230	1	105	..	...	
Total ...	4,073	75,402	3,996	71,159	...	4,243	
Total, Sind Circle ...	4,116	76,987	4,039	72,667	...	4,320	Net difference in favour of the year—Rs. 4,320.
GRAND TOTAL, PRESIDENCY ...	...	12,16,669	...	13,64,273	1,64,003	16,399	Net difference in favour of the year—Rs. 1,47,604.

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget-Head.	Direction.	Panch Mahâls Division.	West Thâna Division.	North Thâna Division.	East Thâna Division.
NORTHERN CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	.....	13,689 8 0	32,326 12 3	8,953 11 0
b. Firewood and charcoal... ...	.....	.....	150 0 0	869 4 6	2,887 10 9
c. Bamboos	.....	.....	5,781 8 0	10,165 11 4	1,034 13 4
d. Sandalwood ...	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	404 3 6	.....	.....	.....
Total, I ...	.....	404 3 6	19,621 0 0	43,361 12 1	12,876 3 1
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	2,71,511 4 3	4,61,393 6 7	8,58,429 0 0	3,48,035 3 2
b. Firewood and charcoal... ...	.....	985 10 10	2,106 13 0	6,451 15 4	89 10 9
c. Bamboos	.....	2,129 1 10	4,389 5 0	9,304 3 9	761 7 9
d. Grazing and fodder grass ...	.....	5,361 8 9	1,504 3 0	6,349 13 0	7,847 9 0
e. Other minor produce	.....	8,007 4 8	7,244 10 6	1,080 4 0	7,324 0 0
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees	.....	.....	.....	.....	.....
Total, II ...	.....	2,87,994 14 4	4,76,643 6 1	8,81,705 4 3	3,64,057 14 8
III.—Drift and Waif Wood and Confiscated Forest Produce...	.....	229 4 6	36 2 6	.....	116 11 6
Total, III ...	.....	229 4 6	36 2 6	.....	116 11 6
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	1,406 7 5	.....	3,805 14 1
Total, IV ...	.....	.....	1,406 7 5	.....	3,805 14 1
V.—Miscellaneous—					
a. Fines and forfeitures	.....	425 1 6	1,174 5 6	55 0 0	4,705 7 6
b. Refunds	.....	34 10 0	963 15 4	45 15 8	118 13 5
c Other sources ...	725 0 10	12,116 13 11	4,250 13 0	7,130 0 4	6,481 0 7
Total, V ...	725 0 10	12,576 9 5	6,389 1 10	7,231 0 0	11,305 5 6
Grand Total, Revenue.	725 0 10	3,01,204 15 9	5,04,096 1 10	9,32,298 0 4	3,92,162 0 10
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	74 8 0	1,775 12 2	12,349 1 2	{ 8,283 13 9 / —19 4 6
b. Firewood and charcoal... ...	.....	.....	26 4 0	12 3 0	1,675 8 1
c. Bamboos	.....	.....	.....	9,131 12 9	.....
d. Sandalwood ..	.....	.....	.....	.....	.....
e. Grass and other minor produce...	.....	5 4 0	.....	.....	.....
Total, A-I ...	.....	79 12 0	1,802 0 2	21,493 0 11	{ 9,959 5 10 / —19 4 6
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	.....	2,343 9 1	3,978 8 0	12,670 1 8	3,626 0 0
Total, A-II ...	.....	2,343 9 1	3,978 8 0	12,670 1 8	3,626 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	.....	0 8 0	8 8 0
Total, A-III ...	.....	.....	.....	0 8 0	8 8 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests ...	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1918-1919.

Surat Division.	North Násik Division.	West Násik Division.	East Násik Division.	Direction Famine Fodder Division.	Direction Timber, Operations Division.	Total for the forest year 1918-1919.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
2,83,709 6 0	21 0 0	1,204 8 0	.....	.....	.....	3,39,904 13 3
.....	1 12 0	591 8 6	.....	.....	.....	4,500 3 9
60 0 0	.....	.....	.....	.....	.....	17,042 0 8
.....	.....	.....	24 0 0	.....	.....	24 0 0
75,845 2 11	.....	.....	.....	2,73,664 9 0	.....	3,49,913 15 5
3,59,614 8 11	22 12 0	1,796 0 6	24 0 0	2,73,664 9 0	.....	7,11,385 1 1
1,53,303 7 4	5,822 11 6	1,58,516 1 0	1,015 2 0	.....	.....	22,58,031 4 0
539 12 9	1,835 5 0	12,007 1 6	3,516 3 0	.....	.....	27,532 8 2
9,775 10 7	44 1 0	5,883 8 0	16 2 0	.....	.....	32,393 7 11
1,813 8 0	23,890 0 0	22,077 6 0	23,718 10 0	.....	.....	92,562 9 9
4,667 11 5	6,531 10 9	4,387 10 0	4,740 5 6	.....	.....	43,983 8 10
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
{ 1,70,092 2 9 + 7 15 4 }	38,123 12 3	2,02,871 10 6	33,006 6 6	.....	.....	24,54,503 6 8
1,000 0 0	239 10 3	12 9 0	54 7 6	.....	.....	1,688 13 3
1,000 0 0	239 10 3	12 9 0	54 7 6	.....	.....	1,688 13 3
.....	.....	.....	.....	.....	.....	.....
390 6 5	.....	.....	.....	.....	.....	5,602 11 11
390 6 5	.....	.....	.....	.....	.....	5,602 11 11
109 0 0	194 0 0	565 14 0	219 0 0	102 0 0	.....	7,549 12 6
337 8 6	.....	1,096 4 1	8 0 0	848 1 8	.....	3,452 15 8
2,677 13 2	5,131 3 2	4,008 4 4	2,769 6 11	32,089 10 0	.....	77,380 2 3
3,124 0 8	5,325 3 2	5,670 6 5	2,996 6 11	33,039 11 8	.....	88,382 14 5
5,34,229 2 1	43,711 5 8	2,10,350 10 5	36,081 4 11	3,06,704 4 8	.....	32,61,562 15 4
} 73,311 7 5	.....	3,601 15 7	.....	.....	86 10 0	{ 99,483 4 1 −19 4 6
.....	.....	4,642 12 3	.....	.....	.....	6,356 11 4
1,220 7 0	.....	.....	.....	.....	.....	10,352 3 9
.....	.....	.....	.....	.....	.....	.....
69 10 6	170 13 0	.....	.....	3,33,933 4 7	.....	3,34,179 0 1
} 74,601 8 11	170 13 0	8,244 11 10	.....	3,33,933 4 7	86 10 0	{ 4,50,371 3 3 −19 4 6
7,113 10 5	434 11 9	3,387 4 2	32 14 0	.....	.....	33,586 11 1
7,113 10 5	434 11 9	3,387 4 2	32 14 0	.....	.....	33,586 11 1
.....	13 12 0	.....	6 0 0	.....	.....	28 12 0
.....	13 12 0	.....	6 0 0	.....	.....	28 12 0
.....	.....	.....	.....	.....	.....	.....
1 10 8	.....	.....	.....	.....	.....	1 10 8
1 10 8	.....	.....	.....	.....	.....	1 10 8

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Panch Mahâls Division.	West Thâna Division.	North Thâna Division.	East Thâna Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	861 15 10	.....	1,489 11 9
Total, A-V ...	.....	.....	861 15 10	.....	1,489 11 9
VI.—Live-Stock, Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	2,716 14 2	36 9 6	101 13 0	429 0 0	424 10 0
Total, A-VI ...	2,716 14 2	36 9 6	101 13 0	429 0 0	424 10 0
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	.....	2,398 14 10	17,102 4 10	8,492 7 9
b. Buildings	250 0 0	194 3 0	4,344 8 2	26,155 11 7	16,033 12 7
c. Other works	.....	158 13 0	86 15 6	1,817 0 1	610 2 0
Total, A-VII ...	250 0 0	353 0 0	6,830 6 6	45,075 0 6	25,136 6 4
VIII.—Organization, Improvement and Extension of Forests—					
a. Demarcation	.....	4 14 0	415 10 6	673 4 0	116 14 0
b. Cost of Forest Settlements and Compensation for land and rights	.....	.....	.....	37 4 0	.....
c. Surveys	.....	.....	.....	.....	.....
d. Working-plans ...	.....	110 9 6	340 3 6	636 11 2	248 2 6
e. Sowing and planting...	132 0 0	1,006 5 6	2,478 6 6	7,223 14 1	1,815 4 3
f. Protection from fire...	.....	429 5 11	3,687 3 6	3,438 8 0	4,818 13 0
g. Other works	.....	1 13 4	20 0 0	158 14 6	962 15 0
Total, A-VIII ...	132 0 0	1,553 0 3	6,941 8 0	12,168 7 9	7,962 0 9
IX.—Miscellaneous—					
a. Law charges	.....	.....	.....	.....	.....
b. Grain Compensation	4 8 0	371 15 11	49 13 7	469 2 0	11 11 0
c. Other charges ...	−1 0 0	1,041 10 6	1,212 10 6	1,108 1 0	1,483 5 4
Total, A-IX ...	3 8 0	1,413 10 5	1,212 8 1	1,577 3 0	1,495 0 4
TOTAL, A.—CONSERVANCY AND WORKS	3,102 6 2	5,779 9 3	21,778 11 7	93,413 5 10	50,101 11 0 −19 4 6
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators	20,400 0 0	.....	.....	.....	.....
b. Superior Officers ...	.....	7,100 0 0	12,436 8 3	9,846 10 8	17,090 1 9
c. Subordinate Forest and Depôt Establishments	50 0 0	22,274 11 4	33,350 5 4	27,385 7 7	29,752 10 1
d. Office Establishments.	8,703 14 5	4,771 5 8	5,786 3 11	6,222 11 1	6,329 10 5
e. Deputation and Special Allowances...	1,924 0 1	14,310 11 8	16,808 12 10	13,163 2 3	15,158 10 0
f. Grain Compensation Allowance	−48 14 2	−1,026 7 3	914 11 3	324 2 9	702 0 11
Total, B-I ..	31,029 0 4	47,430 5 5	67,467 3 1	56,293 12 10	67,628 15 4
II.—Travelling Allowances—					
a. Conservators	2,586 0 0	.....	.....	.....	.....
b. Superior Officers ...	957 3 0	1,200 0 0	2,131 6 8	1,888 5 2	2,463 10 5
c. Subordinate Forest and Depôt Establishments	.....	2,693 11 4	3,494 3 3	3,459 11 0	3,515 14 8
d. Office Establishments.	1,015 10 0	465 13 3	608 15 6	802 8 8	802 13 8
e. Forest School (Dehradun)	.....	.....	.....	546 12 6	200 0 0
f. Plague allowance ...	.....	6 0 0	25 0 0	.....	.....
Total, B-II ...	4,558 13 0	4,365 8 7	6,259 9 5	6,697 5 4	6,982 6 1
III.—Contingencies—					
a. Stationery	29 8 6	288 15 1	444 0 3	365 9 11	423 5 9
b. Carriage of Tents and Records	209 15 0	309 15 5	291 3 6	338 8 9	298 12 1
c. Rents, rates and taxes	1,011 8 0	18 0 0	.....	781 9 9	810 8 0
d. Pay of Police Guards.	.....	.....	.....	.....	.....
e. Official postage ...	884 9 6	1,303 6 6	1,035 3 0	1,157 0 6	1,312 6 0
f. Sundries	738 14 6	287 2 2	425 12 8	724 4 0	444 3 3
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	2,874 7 6	2,207 7 2	2,196 3 5	3,317 0 11	3,289 3 1
TOTAL, B—ESTABLISHMENTS	38,462 4 10	54,003 5 2	75,922 15 11	66,358 3 1	77,900 8 6
GRAND TOTAL OF EXPENDITURE	41,564 11 0	59,782 14 5	97,701 11 6	1,59,771 8 11	1,28,002 3 6 −19 4 6
SURPLUS OR DEFICIT ...	−40,339 10 2	+2,41,422 1 4	+4,06,394 6 4	+7,72,526 7 5	+3,64,179 1 10

different Divisions for the forest year 1918-1919—contd.

Surat Division.	North Násik Division.	West Násik Division.	East Násik Division.	Direction Famine Fodder Division.	Direction Timber Operations Division.	Total for the forest year 1918-1919.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
17,947 6 8	3,275 0 0	.....	.....	.....	.....	23,574 2 3
17,947 6 8	3,275 0 0	.....	.....	.....	.....	23,574 2 3
.....	.....	.....	.....	.....	.....	.....
428 5 6	.....	.....	.....	.....	.....	428 5 6
134 6 0	4,156 3 4	365 8 0	108 0 0	78,629 15 3	.....	87,102 15 3
562 11 6	4,156 3 4	365 8 0	108 0 0	78,629 15 3	.....	87,531 4 9
12,527 7 2	.....	5,345 5 2	4 8 0	.....	.....	45,870 15 9
10,445 14 0	65 4 0	12,853 13 9	275 0 0	.....	.....	70,618 3 1
1,125 13 0	.....	147 11 0	.....	.....	.....	3,946 6 7
24,099 2 2	65 4 0	18,346 13 11	279 8 0	.....	.....	1,20,435 9 5
49 3 6	122 7 0	469 0 2	129 4 3	.....	.....	1,980 9 5
38 11 0	.....	6 1 7	.....	.....	.....	82 0 7
.....	.....	.....	.....	.....	.....	.....
25 7 6	164 6 0	590 6 0	5 1 6	.....	.....	2,120 15 8
279 4 6	1,662 5 3	516 10 4	1,378 14 6	.....	.....	16,463 0 11
5,637 6 3	.....	185 1 0	.....	.....	.....	18,196 5 8
383 1 0	35 8 0	.....	20 5 0	.....	.....	1,592 8 10
6,413 1 9	1,984 10 3	1,767 3 1	1,533 9 3	.....	.....	40,455 9 1
.....	16 2 0	.....	.....	.....	.....	16 2 0
527 9 10	.....	260 8 0	.....	115 3 3	.....	1,750 7 7
1,198 7 3	179 11 6	913 4 3	372 6 0	2,295 7 10	19 4 6	9,823 4 8
1,726 1 1	195 13 6	1,113 12 3	372 6 0	2,410 11 1	19 4 6	11,589 14 8
1,32,465 5 2	10,296 3 10	33,225 5 3	2,932 5 3	4,14,973 14 11	105 14 6	7,67,574 12 9 −19 4 6
.....	.....	.....	.....	.....	.....	20,400 0 0
16,562 14 5	6,402 14 1	12,217 11 10	6,600 0 0	4,141 2 1	.....	92,387 15 1
22,430 9 7	14,444 11 7	15,776 5 7	11,171 0 9	104 3 0	.....	1,77,240 0 10
5,969 10 4	3,393 0 2	4,894 6 11	3,303 0 11	1,014 9 0	40 0 0	50,733 8 10
17,456 15 11	7,518 14 4	8,644 5 9	6,520 5 4	44 10 8	.....	1,01,550 9 10
−194 9 3	474 4 1	−440 10 8	347 9 0	.....	.....	4,973 5 4
62,215 9 0	31,790 4 1	40,8?2 3 5	27,246 14 0	5,304 8 9	40 0 0	4,37,338 12 3
.....	.....	.....	.....	.....	.....	2,586 0 0
3,325 4 0	1,129 6 6	2,749 15 6	689 0 0	.....	.....	16,534 3 9
3,453 13 8	1,297 1 11	1,663 10 3	1,101 12 1	4 14 8	.....	20,684 12 10
954 9 0	405 0 0	396 11 4	342 0 4	21 3 0	.....	5,815 4 1
.....	.....	.....	.....	.....	.....	746 12 6
.....	.....	.....	7 0 0	.....	.....	38 0 0
7,733 10 8	2,831 8 5	4,810 5 1	2,139 12 11	26 1 8	.....	46,405 1 2
251 9 10	209 11 5	287 2 9	183 2 0	291 12 3	.....	2,774 13 9
633 5 11	170 4 6	185 14 0	72 5 0	58 12 6	.....	2,569 0 8
769 3 7	44 0 0	162 2 5	50 0 0	47 10 8	.....	3,694 10 5
.....	.....	.....	.....	.....	.....	.....
962 6 0	304 3 6	455 10 6	502 7 0	485 8 6	.....	8,402 13 0
555 3 1	194 7 9	394 3 0	283 7 0	139 8 9	.....	4,177 2 2
.....	.....	.....	.....	.....	.....	.....
3,171 12 5	912 11 2	1,495 0 8	1,091 5 0	1,023 4 8	.....	21,618 9 0
73,121 0 1	35,539 7 8	47,187 9 2	30,477 15 11	6,353 15 1	40 0 0	5,05,362 5 5
2,05,586 5 3	45,830 11 6	80,412 14 5	32,810 5 2	4,21,327 14 0	145 14 6	12,72,917 13 8
+3,28,642 12 10	−2,119 5 10	+1,29,937 12 0	+3,270 15 9	−4,14,623 9 4	−145 14 6	+19,88,645 1 8

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	East Khándesh Division.	West Khándesh Division.	North Khándesh Division.	Poona Division.
CENTRAL CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	586 0 0	4,320 6 10	107 0 0	118 13 6
b. Firewood and charcoal	.....	455 0 0	.....	.....	4,408 12 6
c. Bamboos	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	6,060 10 0
e. Grass and other minor produce ...	.....	.....	274 6 8	.....	5,768 10 0
Total, I ...	.....	1,041 0 0	8,594 13 1	107 0 0	16,356 3 6
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber	.....	13,622 0 0	1,16,405 8 0	34,892 11 0	36,808 1 0
b. Firewood and charcoal	.....	12,554 15 9	3,295 8 0	9,088 2 0	33,068 4 11
c. Bamboos	.....	8,838 12 6	131 0 0	1,401 15 0	183 4 0
d. Grazing and fodder-grass	.....	1,35,571 12 5	51,069 6 3	76,779 14 6	56,645 13 0
e. Other minor produce	.....	3,545 9 0	15,035 5 6	9,230 6 0	6,821 6 3
f. Other items	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	.....	1,74,183 1 2	1,85,936 11 9	1,31,393 0 6	1,33,526 13 2
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	269 10 3	401 0 0	324 2 0	314 9 9
Total, III ...	.....	269 10 3	401 0 0	324 2 0	314 9 9
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	2,914 1 3	.....	847 12 6	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	4 13 0
Total, IV ...	.....	2,914 1 3	.....	847 12 6	4 13 0
V.—Miscellaneous—					
a. Fines and forfeitures	.....	2,997 15 0	709 14 0	708 10 0	331 4 0
b. Refunds	.....	65 13 11	28 4 3	114 5 11	1 5 8
c. Other sources ...	581 11 0	7,069 3 0	11,627 0 5	10,654 15 3	9,873 7 11
Total, V ...	581 11 0	10,123 15 11	12,365 2 8	11,477 15 2	10,206 1 7
Grand Total, Revenue ...	581 11 0	1,88,531 12 7	2,07,297 11 6	1,44,149 14 2	1,60,408 9 0
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber	.....	1,086 9 0	2,240 11 8	66 8 0	52 12 0
b. Firewood and charcoal	.....	164 4 0	.....	156 12 0	776 1 2
c. Bamboos	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	13 11 8
e. Grass and other minor produce ...	.....	.....	1,765 1 9	806 6 1	2,078 7 0
Total, A-I ...	.....	1,250 13 0	4,005 13 5	1,029 10 1	2,920 15 10
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.	.....	2,292 8 6	3,947 8 1	5,548 13 8	649 6 6
Total, A-II ...	.....	2,292 8 6	3,947 8 1	5,548 13 8	649 6 6
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	2 4 0	.....	0 12 6	12 7 0
Total, A-III ...	.....	2 4 0	.....	0 12 6	12 7 0
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for forest year 1918-1919—contd.

Sátára Division.	Kolába Division.	Working Plans, Division.	West Khándesh Army Fodder Division.	West Khándesh Famine Fodder Division.	Poona Famine Fodder Division.	Satára Famine Fodder.	Total for the forest year 1918-19.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1,247 4 6	89 8 0	.....	.....	.....	.....	.....	6,469 0 4
9,081 13 6	5,609 11 10	.....	.....	.....	.....	.....	19,555 5 10
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	6,060 0 0
753 0 0	.....	.....	3,43,047 1 6	4,84,961 14 2	4,941 14 5	19,150 8 10	8,62,897 7 2
11,082 2 0	5,609 3 10	.....	3,43,047 1 6	4,84,961 14 2	4,941 14 5	19,150 8 10	8,94,981 13 4
23,139 1 6	2,31,582 0 4	.....	.....	.....	.....	.....	4,56,449 12 10
199 10 3	950 7 6	.....	.....	.....	.....	.....	59,157 0 5
58 9 0	.....	.....	.....	.....	.....	.....	10,663 8 0
28,373 7 10	12,199 0 0	.....	.....	.....	.....	.....	3,60,639 6 0
7,589 14 0	3,590 4 0	.....	.....	.....	.....	.....	45,812 12 9
—77 6 0	.....	.....	.....	.....	.....	.....	—77 6 0
.....	.....	.....	.....	.....	.....	.....	.....
59,283 4 7	2,48,322 2 10	.....	.....	.....	.....	.....	9,32,645 2 0
148 8 9	517 5 3	.....	.....	.....	.....	.....	1,975 4 0
148 8 9	517 5 3	.....	.....	.....	.....	.....	1,975 4 0
.....	.....	.....	.....	.....	.....	.....	3,761 13 9
.....	3,349 11 0	.....	.....	.....	.....	.....	3,354 8 0
.....	3,349 11 0	.....	.....	.....	.....	.....	7,116 5 9
596 5 0	1,388 10 0	.....	.....	.....	.....	.....	6,732 10 0
4 11 2	7 8 0	1 13 10	.....	.....	.....	.....	223 14 9
7,143 3 10	9,939 4 8	.....	.....	14,247 3 0	.....	.....	71,127 1 1
7,744 4 0	11,335 6 8	1 13 10	.....	14,247 3 0	.....	.....	78,083 9 10
78,258 3 4	2,99,223 13 7	1 13 10	3,43,047 1 6	4,99,209 1 2	4,941 14 5	19,150 8 10	19,14,802 2 11
81 11 0	40 0 0	.....	.....	.....	.....	.....	3,568 3 8
6,633 4 3	3,815 1 4	.....	.....	.....	.....	.....	11,545 6 9
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	13 11 8
290 14 0	.....	.....	1,94,741 7 0	6,55,254 9 10	7,175 1 8	14,930 1 6	8,77,042 0 10
7,005 13 3	3,855 1 4	.....	1,94,741 7 0	6,55,254 9 10	7,175 1 8	14,930 1 6	8,92,169 6 11
191 0 6	3,177 11 1	.....	.....	.....	.....	.....	15,807 0 4
191 0 6	3,177 11 1	.....	.....	.....	.....	.....	15,807 0 4
.....	18 15 6	.....	.....	.....	.....	.....	34 6 6
.....	18 15 6	.....	.....	.....	.....	.....	34 6 6
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	East Khándesh Division.	West Khándesh Division.	North Khándesh Division.	Poona Division.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*					
V.—Rent of leased Forests and Payments to Share-holders in Forests managed by Government	.....	.....	.....	.....	608 15 5
Total, A-V ...	...	.....	.....	.....	608 15 5
VI.—Live-stock, Stores, Tools and Plant—					
a. Purchase of cattle	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	4 0 0	.....	.....
c. Purchase of stores, tools and plant...	52 10 0	647 10 0	245 14 8	92 14 0	13 2 0
Total, A-VI ...	52 10 0	647 10 0	249 14 8	92 14 0	13 2 0
VII.—Communications and Buildings—					
a. Roads and Bridges	.....	2,836 2 9	669 1 0	6,253 0 6	1,347 6 0
b. Buildings... ...	.....	2,295 8 0	2,715 13 5	4,972 13 6	2,511 2 6
c. Other works ...	.....	917 5 9	782 15 0	617 5 3	.....
Total, A-VII ...	.....	5,989 0 6	4,167 13 5	11,843 3 3	3,858 8 6
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	95 0 6	316 13 0	219 14 0	755 6 0
b. Cost of Forest Settlements and Compensation for land and rights.	.....	.....	0 9 7	.....	.....
c. Surveys	.....	.....	.....	.....	.....
d. Working Plans ...	.....	1,085 9 6	197 0 2	1,204 1 6	533 6 3
e. Sowing and Planting	.....	296 9 6	840 5 3	260 2 9	2,555 8 3
f. Protection from Fire	.....	1,181 14 0	4,566 2 9	5,148 4 1	18 0 0
g. Other work ...	.....	269 11 6	58 2 0	198 11 0	226 15 0
Total, A-VIII ...	.....	2,927 13 0	5,979 0 9	7,031 1 4	4,089 3 6
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain Compensation	.....	115 1 4	208 1 7	291 5 6	70 8 0
c. Other charges ...	7,843 10 0	305 1 10	761 3 2	231 6 0	626 15 5
Total, A-IX ...	7,843 10 0	420 3 2	969 4 9	522 11 6	697 7 5
TOTAL A.—CONSERVANCY AND WORKS...	7,896 4 0	13,530 4 2	19,319 7 1	26,069 1 10	12,850 2 2
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	21,991 10 8	.....	.....	.....	.....
b. Superior Officers.	1,250 0 0	13,553 3 7	10,192 4 2	11,724 3 1	10,738 0 0
c. Subordinate Forest and Depôt Establishments.	.....	25,308 11 1	22,134 10 5	21,123 14 2	39,905 12 4
d. Office Establishments	8,500 7 9	6,454 4 10	5,484 14 2	5,206 7 11	6,791 9 7
e. Deputation and Special Allowances	15,273 8 7	15,853 9 5	13,615 3 2	12,348 6 3	19,450 7 5
f. Grain Compensation Allowances	−16 7 9	−967 12 11	−804 14 7	−553 14 6	−592 5 4
Total, B-I ...	46,999 3 3	63,202 0 0	50,622 1 4	49,849 0 11	76,193 8 0
II.—Travelling Allowances—					
a. Conservators ...	2,760 1 0	.....	.....	.....	.....
b. Superior Officers.	140 5 2	2,426 13 0	1,937 1 4	2,573 8 0	1,774 2 8
c. Subordinate Forest and Depôt Establishments.	.....	3,005 0 10	3,510 6 6	3,484 8 8	4,025 4 10
d. Office Establishments	903 0 10	662 2 0	996 14 2	583 9 6	712 7 2
e. Forest School, (Dehra Dun) ...	767 12 0	150 0 0	.....	.....	.....
f. Plague allowance.	.....	106 10 3	143 8 0	45 0 0	62 0 0
Total, B-II ...	4,571 3 0	6,350 10 1	6,587 14 0	6,686 10 2	6,573 14 8
III.—Contingencies—					
a. Stationery ...	8 9 6	382 13 6	255 12 3	319 0 9	498 0 6
b. Carriage of Tents and Records ...	192 5 3	268 11 0	186 9 6	329 7 6	357 7 3
c. Rents, rates and taxes	75 0 6	.....	29 6 1	115 0 0	123 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....
e. Official postage...	306 3 0	982 7 0	1,136 8 6	622 9 0	1,484 10 0
f. Sundries	445 13 0	466 0 0	596 8 3	750 11 8	480 14 6
Payments to Officers of other Provinces.	.....	.....	.....	.....	.....
Total, B-III ...	1,027 15 3	2,099 15 0	2,254 12 7	2,136 12 11	2,953 0 3
TOTAL, B.—ESTABLISHMENTS...	52,598 5 6	71,652 9 1	59,464 11 11	58,672 8 0	85,720 6 11
GRAND TOTAL OF EXPENDITURE ...	60,494 9 6	85,182 13 3	78,784 3 0	8,471 9 10	98,570 9 1
Supplies or Deficit ...	−59,912 14 6	+1,03,348 15 4	+1,28,513 8 6	+59,408 4 4	+61,837 11 11

different Divisions for the forest year 1918-1919—continued.

Sátára Division.	Kolaba Divisinon.	Working Plans, Division.	West Khandesh army fodder Division.	West Khándesh Famine fodder, Division,	Poona Famine Fodder Division.	Sátara Famine Fodder.	Total for the fores year 1918-1919.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
6,924 7	8,466 11 2	.....	.....	.....	.....	.....	16,000 2 2
6,924 7 7	8,466 11 2	.....	.....	.....	...	.....	16,000 2 2
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	4 0 0
66 0 0	7 0 0	34 s 0	.....	.....	.....	326 0 0	1,485 10 8
66 0 0	7 0 0	34 8 0	.....	.....	.....	326 0 0	1,489 10 8
1,117 7 0	72 13 6	.....	.....	.....	.....	35 7 0	12,331 5 9
468 2 6	2,225 8 0	.....	.....	.....	.....	9 11 0	15,138 11 11
101 12 0	.....	.....	.....	.....	.....	.....	2,419 6 0
1,687 5 6	2,298 5 6	.....	.....	.....	.....	45 3 0	29,889 7 8
227 10 9	328 2 0	.....	.....	.....	.....	.....	1,942 14 3
556 4 0	0 12 0	.....	.....	.....	.....	.....	557 9 7
.....	.....	.....	.....	.....	.....	.....	.....
99 6 6	613 4 9	712 2 4	.....	...	.....	.....	4,444 15 0
1,433 2 1	2,265 11 3	23 10 0	.....	.....	.....	.....	7,675 1 1
15 0 0	143 0 0	.....	.....	.....	.....	13 8 0	11,220 12 10
98 11 7	1,051 6 6	.....	.....	.....	.....	18 5 0	1,923 14 7
2,565 2 11	4,405 4 6	735 12 4	.....	.....	.....	31 13 0	27,765 3 4
0 15 6	.....	.....	.....	.....	.....	.....	0 15 6
15 0 0	309 6 1	.....	.....	.....	.....	.....	1,009 6 6
445 13 8	677 10 1	18 0 0	.....	.....	.....	2 5 0	10,912 1 2
461 13 2	987 0 2	18 0 0	.....	.....	.....	2 5 0	11,922 7 2
18,901 10 11	23,216 1 3	788 4 4	1,94,741 7 0	6,55,254 9 10	7,175 1 8	15,335 6 6	9,95,077 12 9
.....	.....	.....	.....	.....	.....	.....	21,991 10 8
10,523 10 2	11,585 7 6	4,000 0 0	.....	.....	.....	.....	73,566 12 6
25,485 11 4	42,475 2 8	1,996 0 2	.....	.....	.....	.....	1,81,329 14 2
5,929 4 4	8,421 15 5	1,313 10 9	.....	.....	.....	.....	48,102 10 9
13,519 12 11	11,253 2 11	1,112 11 10	.....	.....	.....	.....	1,02,426 14 6
−667 5 10	9,700 6 2	−58 7 8	.....	.....	.....	.....	6,039 1 7
54,791 0 11	83,436 2 8	8,363 15 1	.....	.....	.....	.....	4,33,457 0 2
.....	.....	.....	.....	.....	.....	.....	2,760 4 0
1,760 8 7	1,711 11 2	526 12 0	.....	.....	.....	.....	12,850 13 11
3,013 8 11	2,408 12 8	714 15 2	.....	.....	.....	.....	20,162 8 11
571 14 11	772 0 4	234 11 9	.....	.....	.....	.....	5,476 12 8
75 0 0	37 1 7	.....	.....	.....	.....	.....	1,029 13 7
28 8 0	15 0 0	.....	.....	.....	.....	.....	400 10 3
5,449 8 5	4,944 9 1	1,576 6 11	.....	.....	.....	.....	42,680 12 4
371 14 2	449 6 9	5 15 0	.....	.....	.....	9 3 0	2,300 10 11
426 4 6	225 14 9	209 15 6	.....	.....	.....	.....	2,193 11 3
62 4 0	11 0 0	.....	.....	.....	.....	.....	415 10 7
.....	.....	.....	.....	.....	.....	.....	.....
886 7 0	976 5 6	66 13 6	.....	.....	.....	.....	6,511 15 6
253 4 4	176 7 3	112 12 8	.....	.....	.....	17 5 3	3,308 12 11
.....	.....	.....	.....	.....	.....	.....	.....
1,997 2 0	1,839 2 8	395 8 3	.....	.....	.....	26 8 3	14,730 13 2
62,237 11 4	90,219 14 5	10,275 14 3	.....	.....	.....	26 8 3	4,90,868 9 8
81,139 6 3	1,13,435 15 8	11,064 2 7	1,94,741 7 0	6,55,254 9 10	7,175 1 8	15,361 14 9	14,85,946 6 5
−2,881 2 11	1,55,787 3 11	−11,062 4 9	+1,48,305 10 6	−1,56,045 8 8	−2,233 3 3	+3,788 10 1	+4,28,855 12 8

FORM No. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Ratnagiri Division.	Belgaum Famine fodder Division.	Belgaum Division.	Kánára Eastern Division.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
SOUTHERN CIRCLE.					
REVENUE.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	.....	.....	.....	74,914 12 3	3,26,532 1 1
b. Firewood and charcoal ...	.....	.....	.....	3,75,095 10 6	.....
c. Bamboos ...	.....	.....	.....	15 329 8 0	576 5 6
d. Sandalwood ...	.....	.....	.....	9,873 1 10	18,064 1 5
e. Grass and other minor produce ...	.....	.....	54,622 14 5	182 8 5	472 0 10
Total, I ...	.....	.....	54,622 14 5	4,7 395 9 0	3,45,644 8 10
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
a. Timber ...	.....	.....	.....	31,390 2 5	46,818 8 5
b. Firewood and charcoal ...	.....	.....	.....	97,648 8 9	14,028 4 0
c. Bamboos ...	.....	.....	.....	3,953 4 0	9,741 4 6
d. Grazing and fodder grass ...	.....	.....	.....	10,529 4 0	11,021 12 0
e. Other minor produce...	.....	.....	.....	15,274 5 2	1,725 15 0
f. Other items ...	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....
Total, II ...	.....	.....	.....	1,58,795 8 4	83,335 11 11
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	.....	139 0 0	.....
Total, III ...	.....	.....	.....	139 0 0	.....
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests	.....	.....	.....	.....	.....
Total, IV ...	.....	.....	.....	.....	.....
V.—Miscellaneous—					
a. Fines and forfeitures	.....	.....	.....	2,307 13 9	593 14 0
b. Refunds ...	69 10 6	.....	.....	424 5 5	9 13 1
c. Other sources ...	1,060 1 10	.....	.....	14,400 14 2	8,768 10 9
Total, V ...	1,129 12 4	.....	.....	17,133 1 4	9,372 5 10
Grand Total, Revenue ...	1,129 12 4	.....	54,622 14 5	6,51,463 2 8	4,38,352 10 7
EXPENDITURE.					
A.—CONSERVANCY AND WORKS.					
I.—Timber and other Produce removed from the Forests by Government Agency—					
a. Timber ...	29 0 6	.....	.....	14,711 6 3	1,19,446 11 0
b. Firewood and charcoal ...	.....	.....	.....	2,00,366 2 6	.....
c. Bamboos ...	.....	.....	.....	1,756 6 9	774 0 0
d. Sandalwood ...	.....	.....	.....	1,043 13 7	318 10 11
e. Grass and other minor produce ...	.....	.....	1,26,296 8 4	2,041 7 3	4,656 5 10
Total, A-I ...	29 0 6	.....	1,26,296 8 4	2,19,919 4 4	1,25,195 11 9
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	.....	.....	.....	3,164 10 9	1,333 2 6
Total, A-II ...	.....	.....	.....	3,164 10 9	1,333 2 6
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	.....	.....	29 7 7	.....
Total, A-III ...	.....	.....	.....	29 7 7	.....
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce ...	.....	.....	.....	.....	.....
b. Revenue from shared and private Forests .	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....

different Divisions for the forest year 1918-1819—contd.

Kánara Northern Division.	Dhárwár and Bijápur Division.	Kánara Famine fodder Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1918-1919.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
7,43,374 11 5	.....	.....	19,182 7 9	3,81,294 15 6	2,78,368 9 4	18,23,667 9 4
6,045 13 1	1,730 15 10	.....	9,551 1 2	1,05,883 3 7	3,787 11 3	5,02,094 7 5
1,015 8 0	.....	.....	4,389 5 0	26,099 2 11	21,636 13 7	69,046 11 0
6,487 15 3	15,646 1 1	.....	5,546 9 2	.....	6,545 7 7	62,163 4 4
715 4 0	1,637 4 10	.....	.....	.....	573 0 0	58,203 0 6
7,57,639 3 9	19,014 5 9	.....	38,669 7 1	5,13,277 6 0	3,10,911 9 9	25,15,175 0 7
2,12,126 3 3	121 3 1	.....	3,437 11 5	5,653 12 2	2,154 4 10	3,01,701 13 7
18,110 5 6	20,091 2 1	.....	9,222 0 1	24,186 12 7	8,652 11 1	1,91,939 12 1
22,312 11 0	511 12 0	.....	671 3 0	3,624 8 0	454 15 0	41,269 9 6
7,864 0 0	26,037 4 0	.....	10,086 8 0	5,067 6 1	5,224 2 0	75,830 4 1
1,968 4 0	23,920 15 1	.....	4,600 5 1	2,984 12 0	3,016 14 8	53,491 7 0
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
2,62,381 7 9	70,682 4 3	.....	28,017 11 7	41,517 2 10	19,502 15 7	6,64,232 14 3
.....	16 10 7	.....	.....	0 0 6	2 8 0	158 3 1
.....	16 10 7	.....	.....	0 0 6	2 8 0	158 3 1
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
1,410 8 0	87 0 0	.....	811 13 5	4,796 3 0	921 12 0	10,929 0 2
1,117 8 6	37 8 7	.....	25 14 8	37 6 8	54 6 6	1,776 9 11
10,187 5 1	3,626 14 6	.....	2,249 11 6	1,578 11 5	1,852 11 4	43,665 0 7
12,715 5 7	3,751 7 1	.....	3,087 7 7	6,352 5 1	2,828 13 10	56,370 10 8
10,32,736 1 1	93,464 11 8		69,774 10 3	5,61,146 14 5	3,33,245 15 2	32,35,936 12 7
4,92,276 1 8	0 9 0	.....	7,465 11 4	1,54,011 9 6	62,068 14 7	8,50,009 15 10
12,767 15 10	464 0 2	.....	1,246 3 5	74,697 13 5	4,695 2 11	2,94,137 6 3
0 8 0	.....	.....	.....	1,804 4 2	3,196 5 0	7,531 7 11
172 0 9	703 4 7	.....	237 3 10	.....	455 10 11	2,930 12 7
3,170 15 11	930 10 2	.....	.....	3,386 8 0	.....	1,41,538 1 6
5,08,387 10 2	2,098 7 11	.....	8,949 2 7	2,33,800 3 1	70,416 1 5	12,96,147 12 1
1,112 2 6	523 4 8	.....	863 9 6	1,598 5 2	306 8 9	8,901 11 10
1,112 2 6	523 4 8	.....	863 9 6	1,598 5 2	306 8 9	8,901 11 10
3 0 0	2 4 0	.....	26 11 2	16 9 6	18 6 1	96 6 4
3 0 0	2 4 0	.....	26 11 2	16 9 6	18 6 1	96 6 4
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....

FORM NO. 24.—*Summary of Revenue and Expenditure of the*

Budget Head.	Direction.	Ratnágiri Division.	Belgaum Famine fodder Division.	Belgaum Division.	Kánara Eastern Division.
EXPENDITURE —*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*					
V.—Rent of leased Forests and Payments to Shareholders in Forests managed by Government ...	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....
VI.—Live-stock Stores, Tools and Plant—					
a. Purchase of cattle ...	.....	.....	.....	.....	.....
b. Feed and keep of cattle ...	.....	.....	.....	.....	2,288 4 7
c. Purchase of stores, tools and plant ...	1,754 13 6	.....	.....	513 11 0	419 4 0
Total, A-VI ...	1,754 13 6	.....	.....	513 11 0	2,707 8 7
VII.—Communications and Buildings—					
a. Roads and bridges ...	.....	.....	.....	22,977 8 2	50,506 11 5
b. Buildings ...	.....	10 0 0	.....	1,125 0 7	9,568 12 3
c. Other works ...	.....	.....	.....	1,751 5 0	6,778 2 6
Total, A-VII ...	.....	10 0 0	.....	25,853 13 9	66,853 10 2
VIII.—Organization, Improvement and Extension of Forest—					
a. Demarcation ...	.....	.....	.....	407 3 9	870 0 0
b. Cost of Forest Settlements and Compensation for land and rights	.....	.....	.....	1 2 5	35 8 0
c. Surveys ...	.....	.....	.....	.....	.....
d. Working-plans ...	88 1 3	.....	.....	.....	.....
e. Sowing and planting ...	.....	26 0 0	.....	8,096 14 8	27,380 10 4
f. Protection from fire.	.....	.....	.....	6,747 12 6	4,804 12 0
g. Other works ...	.....	.....	.....	3,810 13 11	1,340 12 3
Total, A-VIII ...	88 1 3	26 0 0	.....	19,263 15 3	33,640 10 7
IX.—Miscellaneous—					
a. Law charges ...	.....	.....	.....	.....	.....
b. Grain compensation allowance ...	19 12 0	.....	.....	7 7 2	1,290 14 11
c. Other charges ...	—14 6 0	.....	.....	2,218 6 6	15,826 9 10
Total, A-IX. ...	5 6 0	.....	.....	2,225 13 8	17,116 14 9
TOTAL A.—CONSERVANCY AND WORKS ...	1,877 5 3	36 0 0	1,26,296 8 4	2,70,970 12 4	2,46,847 10 4
B.—ESTABLISHMENTS.					
I.—Salaries—					
a. Conservators ...	18,000 0 0	.....	.....	.....	.....
b. Superior Officers ...	.....	.....	.....	21,342 14 9	20,790 5 2
c. Subordinate Forest and Depôt Establishments ...	1,138 14 3	54 0 0	.....	32,022 6 7	25,366 15 8
d. Office Establishments	7,630 2 4	40 0 0	.....	5,789 6 10	5,805 15 9
e. Deputation and Special Allowances.	2,185 8 2	.....	.....	14,660 6 11	14,959 5 3
f. Grain Compensation Allowance—	102 11 8	15 14 0	.....	1,104 15 1	2,157 9 3
Total, B-I ...	29,057 4 5	109 4 0	.....	74,920 2 2	69,080 3 1
II.—Travelling Allowances—					
a. Conservators ...	2,464 8 0	.....	.....	.....	.....
b. Superior Officers ...	.....	.....	.....	3,175 13 9	2,326 7 0
c. Subordinate Forest and Depôt Establishments ...	185 13 0	.....	.....	3,897 14 1	3,356 3 11
d. Office Establishments ...	751 11 1	.....	.....	685 9 5	526 14 6
e. Forest School (Dehra Dun) ...	100 0 0	.....	.....	.....	173 13 6
f. Plague allowance ...	.....	.....	.....	.....	.....
Total, B-II ...	3,502 0 1	.....	.....	7,759 5 3	6,383 6 11
III.—Contingencies—					
a. Stationery ...	14 3 9	.....	.....	227 1 8	220 5 11
b. Carriage of Tents and Records ...	244 4 6	.....	.....	381 13 0	77 13 0
c. Rents, Rates and Taxes ...	840 0 0	.....	.....	.....	.....
d. Pay of Police-guards ...	.....	.....	.....	.....	.....
e. Official Postage ...	883 9 0	5 0 0	.....	1,627 14 6	698 15 6
f. Sundries ...	1,911 9 9	.....	.....	661 11 0	333 0 4
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....
Total, B-III ...	3,893 11 0	5 0 0	.....	2,948 8 2	1,360 2 9
TOTAL, B—ESTABLISHMENTS ...	36,452 15 6	114 4 0	.....	85,627 15 7	76,823 12 9
GRAND TOTAL OF EXPENDITURE ...	38,330 4 9	150 4 0	1,26,296 8 4	3,56,598 11 11	3,23,671 7 1
SURPLUS OR DEFICIT ...	—37,200 8 5	—150 4 0	—71,673 9 11	+2,34,864 6 9	+1,14,691 3 6

different Divisions for the forest year 1918-1919—contd.

Kánara Northern Division.	Dhárwár and Bijápur Division.	Kánara Famine fodder Division.	Kánara Southern Division.	Kánara Western Division.	Kánara Central Division.	Total for the forest year 1918-1919.
Rs. p. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
.....	30 0 0	.....	.....	.....	.....	30 0 0
.....	30 0 0	.....	.....	.....	.....	30 0 0
265 0 0	.....	.....	.....	92 0 0	.....	357 0 0
2,483 15 6	.....	.....	.....	634 4 10	.....	5,406 8 11
2,735 4 11	82 0 0	.....	50 15 3	192 0 0	231 15 0	5,979 15 8
5,484 4 5	82 0 0	.....	50 15 3	918 4 10	231 15 0	11,743 8 7
3,23,791 9 6	.....	.....	1,100 15 0	77,443 1 3	11,641 3 0	4,92,461 0 4
72,355 0 9	181 8 6	.....	405 8 9	1,517 15 6	837 10 7	86,004 8 11
948 10 1	34 5 0	.....	110 0 0	1,381 4 0	160 0 4	11,163 10 11
4,02,098 4 4	215 13 6	.....	1,616 7 9	80,343 4 9	12,638 13 11	5,89,629 4 2
.....	475 0 3	.....	23 0 0	180 5 0	8 10 0	1,964 3 0
29 14 0	41 6 0	.....	.....	173 15 7	.....	281 14 0
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	88 1 3
16,517 12 9	1,008 10 9	.....	3,323 8 4	12,572 5 7	2,073 14 9	71,199 13 2
4,487 10 4	678 4 8	.....	812 7 7	3,069 5 10	1,147 1 1	20,947 6 0
.....	50 0 0	.....	.....	.....	.....	5,210 10 2
21,035 5 1	2,253 5 8	.....	4,158 15 11	15,996 0 0	3,229 9 10	99,691 15 7
.....	.....	.....	.....	15 0 0	.....	15 0 0
2,898 9 8	12 8 1	.....	86 10 9	787 10 0	187 11 10	5,284 10 5
280 3 8	349 13 0	.....	480 5 2	975 1 0	473 12 6	20,589 13 8
3,178 13 4	362 5 1	.....	566 15 11	1,771 11 0	661 8 4	25,889 8 1
9,41,299 7 10	5,567 8 10	1,055 10 0	16,232 14 1	3,34,443 6 4	87,502 15 4	20,32,130 2 8
.....	.....	.....	.....	.....	.....	18,000 0 0
18,948 11 3	5,518 1 0	.....	6,056 7 2	16,608 0 8	11,508 2 9	1,02,772 10 9
33,474 2 5	19,978 11 2	.....	17,173 6 9	22,153 0 2	18,063 10 2	1,69,425 3 2
5,977 15 11	4,660 8 1	.....	4,445 9 3	6,145 11 1	4,529 3 4	45,024 8 7
19,141 9 4	9,784 9 5	.....	7,320 13 0	10,756 7 8	10,619 15 3	89,428 11 0
1,407 2 4	712 10 7		724 3 7	—552 14 4	—466 4 10	5,205 5 4
78,949 9 3	40,654 8 3	.....	35,720 7 9	57,110 5 3	44,254 10 3	4,20,856 6 10
.....	.....	.....	.....	.....	.....	2,464 8 0
3,033 1 8	1,543 4 8	.....	1,347 4 3	2,640 15 0	2,513 4 0	16,580 2 4
4,336 9 0	1,883 13 1	.....	1,644 14 3	2,530 7 4	2,430 0 4	20,265 11 0
809 1 2	415 0 3	.....	500 0 3	652 10 3	852 3 3	5,193 2 2
230 0 0	.....	.....	.....	275 0 0	60 7 11	839 5 5
.....	.....	.....	.....	.....	.....	.....
8,408 11 10	3,842 2 0	.....	3,492 2 9	6,099 0 7	5,855 15 6	45,342 12 11
342 14 2	224 6 3	.....	159 14 10	200 6 0	221 15 6	1,691 4 1
59 1 6	219 3 9	.....	154 2 1	416 13 10	646 5 2	2,199 8 10
.....	.....	.....	.....	.....	150 8 0	990 8 0
.....	1,097 14 0	.....	828 14 0	654 4 6	1,268 0 0	7,985 8 6
921 1 0	312 9 11	.....	85 12 9	249 10 7	583 11 7	4,277 11 2
139 9 3	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....
1,462 9 11	1,854 1 11	.....	1,228 11 8	1,521 2 11	2,870 8 3	17,144 8 7
88,820 15 0	46,350 12 2	.....	40,441 6 2	64,730 8 9	52,981 2 5	4,92,343 12 4
10,30,120 6 10	71,918 5 0	1,055 10 0	56,674 4 3	3,99,173 15 1	1,40,484 1 9	25,24,473 15 0
+2,615 10 3	+41,346 6 8	—1,055 10 0	+13,100 6 0	+1,61,972 15 4	+1,92,761 13 5	+7,11,462 13 7

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1918-1919*—contd.

Budget Head.	Direction.	Sukkur Division.	Hyderabad Division.	Lárkána Division.	Shikarpur Division.	Kárachi Division.	Thar and Párkar Division.	Total for the forest year 1918-19.
SIND CIRCLE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
REVENUE.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	10,165 3 7	.....	773 14 0	.....	2,802 14 0	.....	13,741 15 7
b. Firewood and charcoal	.....	2,791 7 9	3,885 7 10	4,099 10 9	.....	36,494 3 4	.....	47,270 13 8
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	186 4 2	252 14 5	19 5 7	.....	1,304 2 8	.....	1,762 10 10
Total, I ...	.....	13,142 15 6	4,138 6 3	4,892 14 4	.....	40,601 4 0	.....	62,775 8 1
II.—Timber and other produce removed from the forests by consumers or purchasers—								
a. Timber...	.....	41,823 15 9	42,907 9 2	10,294 7 2	12,946 13 5	12,789 15 3	100 0 0	1,20,862 12 9
b. Firewood and charcoal.	.....	1,83,170 12 7	92,840 4 6	39,536 14 8	70,024 7 10	73,532 9 1	134 10 0	4,59,239 10 8
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Grazing and fodder grass	.....	9,402 14 0	10,970 2 0	6,822 11 0	4,818 5 6	7,742 7 11	314 4 0	40,070 12 5
e. Other minor produce .	.....	3,545 7 6	25,782 11 4	2,938 12 0	1,207 13 0	6,517 8 8	10,656 8 0	50,648 12 6
f. Other items ...	.....	.....	.....	.....	.....	.....	.....	.....
g. Commutation fees ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, II ...	.....	2,37,943 1 10	1,72,500 11 0	59,592 12 10	88,997 7 9	1,00,582 8 11	,205 6 0	6,70,822 0 4
III.—Drift and waif wood and confiscated forest produce	.....	177 3 9	47 6 0	364 0 0	635 7 0	578 8 0	.....	1,802 8 9
Total, III ...	.....	177 3 9	47 6 0	364 0 0	635 7 0	578 8 0	.....	1,802 8 9
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, IV ...	.....	.....	.....	.....	.....	.....	.....	.....
V.—Miscellaneous—								
a. Fines and forfeitures .	.....	2,299 0 7	1,529 0 0	685 0 0	2,713 12 0	1,173 0 0	.....	8,399 12 7
b. Refunds	5 8 0	17 15 4	16 0 10	46 9 8	.....	.....	.....	86 1 10
c. Other sources	51 11 0	9,531 11 1	5,016 1 9	7,431 11 4	3,656 14 3	3,315 12 6	.....	29,003 13 11
Total, V ...	57 3 0	11,848 11 0	6,561 2 7	8,163 5 0	6,370 10 3	4,488 12 6	.....	37,489 12 4
Grand Total, Revenue ...	57 3 0	2,63,112 0 1	1,83,247 9 10	73,013 0 2	96,003 9 0	1,46,251 1 5	11,205 6 0	7,72,889 13 6
EXPENDITURE.								
A.—CONSERVANCY AND WORKS.								
I.—Timber and other produce removed from the forests by Government Agency—								
a. Timber	.....	2,566 14 10	.....	238 4 7	240 3 9	.....	.....	3,045 7 2
b. Firewood and charcoal	.....	2,955 7 4	4,264 11 1	2,208 14 0	.....	10,335 9 3	.....	19,764 9 8
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-I ...	.....	5,522 6 2	4,264 11 1	2,447 2 7	240 3 9	10,335 9 3	.....	22,810 0 10
II.—Timber and other produce removed from the forests by consumers or purchasers	.....	15 0 0	27 12 0	9 13 0	4 8 0	181 6 0	.....	238 7 0
Total, A-II ...	.....	15 0 0	27 12 0	9 13 0	4 8 0	181 6 0	.....	238 7 0
III.—Drift and waif wood and confiscated forest produce	.....	8 12 0	.....	.....	51 13 11	13 11 0	.....	74 4 11
Total, A-III ...	.....	8 12 0	.....	.....	51 13 11	13 11 0	.....	74 4 11
IV.—Revenue from forests not managed by Government—								
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-IV ...	.....	.....	.....	.....	.....	.....	.....	.....

FORM No. 24.—*Summary of Revenue and Expenditure of the different divisions for the forest year 1918-1919*—concld.

Budget Head.	Direction.	Sukkur Division.	Hyderabad Division.	Lárkána Division.	Shikarpur Division.	Karáchi Division.	Thar and Párkar Division.	Total for the forest year 1918-19.
EXPENDITURE—*contd.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*contd.*								
V.—Rent of leased forests and payments to shareholders in forests managed by Government	.....	.....	.....	.....	.....	.....	.....	.....
Total, A-V ...	.....	.....	.....	.....	.....	.....	.....	.....
VI.—Live Stock, Stores, Tools and Plant—								
a. Purchase of cattle ...	.....	60 0 0	.....	50 0 0	.....	.....	.....	110 0 0
b. Feed and keep of cattle	.....	679 6 0	.....	40 0 0	.....	3 8 0	.....	722 14 0
c. Purchase of stores, tools and plant ...	156 12 0	190 8 0	132 11 6	116 4 0	209 14 0	50 12 0	.....	856 13 6
Total, A-VI ...	156 12 0	929 14 0	132 11 6	206 4 0	209 14 0	54 4 0	.....	1,689 11 6
VII.—Communications and Buildings—								
a. Roads and bridges ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Buildings	.....	747 12 7	819 7 4	389 10 1	592 4 4	800 6 3	.....	3,349 8 7
c. Other works	.....	387 8 1	1,406 9 0	1,026 0 0	595 0 0	2,325 5 11	.....	5,740 7 0
Total, A-VII ...	.....	1,135 4 8	2,226 0 4	1,415 10 1	1,187 4 4	3,125 12 2	.....	9,089 15 7
VIII.—Organization, Improvement and Extension of forest—								
a. Demarcation	.....	.....	.....	.....	.....	.....	.....	.....
b. Cost of forest settlements and compensation for land and rights	.....	.....	.....	.....	.....	.....	.....	.....
c. Surveys	.....	.....	.....	.....	.....	.....	.....	.....
d. Working Plans ...	.....	58 4 6	45 2 0	348 11 9	636 10 2	105 15 3	.....	1,194 11 8
e. Sowing and planting	311 6 8	1,941 13 4	5,255 4 8	304 9 0	580 2 10	1,287 1 9	.....	9,680 6 3
f. Protection from fire...	.....	.....	46 0 0	265 0 0	150 0 0	793 5 6	.....	1,254 5 6
g. Other works	.....	.....	1,076 9 10	397 9 1	206 14 0	.....	.....	2,181 0 11
Total, A-VIII ...	311 6 8	2,000 1 10	6,423 0 6	1,815 13 10	1,573 11 0	2,186 6 6	.....	14,260 8 4
IX.—Miscellaneous—								
a. Law charges	.....	.....	.....	.....	.....	.....	.....	.....
b. Grain compensation...	.....	285 13 1	295 3 6	145 1 5	101 5 6	61 15 6	.....	889 7 0
c. Other charges... ...	0 2 8	1,327 6 0	425 15 1	636 0 6	773 1 6	1,284 1 0	.....	4,396 10 9
Total, A-IX ...	0 2 8	1,613 3 1	721 2 7	781 1 11	874 7 0	1,296 0 6	.....	5,286 1 9
TOTAL, A.—CONSERVANCY AND WORKS	468 5 4	11,224 9 9	13,795 6 0	6,675 13 5	4,141 14 0	17,143 1 5	.....	53,449 1 11
B.—ESTABLISHMENTS.								
I.—Salaries.								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	14,050 1 8	9,200 0 0	6,600 0 0	7,773 8 10	5,225 11 5	5,400 0 0	.....	48,249 5 11
c. Subordinate Forest and Depôt Establishments	100 0 0	15,580 5 10	13,882 15 6	10,132 7 4	9,159 9 0	15,379 7 9	1,568 8 5	65,803 5 10
d. Office Establishments.	5,898 4 0	4,154 4 3	4,282 1 9	3,603 5 4	3,137 12 7	4,133 14 5	.....	25,209 10 4
e. Deputation and Special Allowances	3,508 1 9	8,164 7 11	5,451 9 1	4,381 14 4	4,592 1 9	7,359 10 7	.....	33,457 13 5
f. Grain compensation .	12 3 10	742 4 3	503 1 7	448 2 4	440 15 11	478 8 2	310 15 9	2,936 3 10
Total, B-I ...	23,568 11 3	37,841 6 3	30,719 11 11	26,339 6 2	22,556 2 8	32,751 8 11	1,879 8 2	1,75,656 7 4
II.—Travelling Allowances—								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers ...	3,160 3 6	1,271 0 8	1,228 4 8	1,362 14 4	1,200 0 0	750 0 0	.....	8,972 7 2
c. Subordinate Forest and Depôt Establishments.	.....	1,343 5 7	1,166 10 3	914 1 0	983 9 2	1,555 4 0	.....	6,462 14 0
d. Office Establishments .	709 8 1	513 15 2	554 10 6	675 4 11	411 2 0	639 3 7	.....	3,502 12 3
e. Forest School (D.D.) .	.....	100 0 0	105 11 1	.....	.....	137 15 6	.....	343 10 7
f. Plague allowance ...	.....	.....	114 12 3	.....	.....	.....	.....	114 12 3
Total, B-II ...	3,868 11 7	3,728 5 5	3,170 0 9	2,952 4 3	2,594 11 2	3,082 7 1	.....	19,396 8 3
III.—Contingencies –								
a. Stationery	8 0 0	183 9 6	179 0 6	91 10 6	106 9 9	139 8 0	.....	708 6 3
b. Carriage of tents and records	485 6 10	254 10 9	232 12 7	233 8 2	204 5 2	293 4 3	.....	1,703 15 9
c. Rents, Rates and Taxes	1,757 10 8	143 4 6	564 0 0	704 8 0	82 8 0	660 0 0	.....	3,911 15 2
d. Pay of Police guards.	.....	.....	.....	.....	.....	.....	.....	.....
e Official postage ...	436 4 0	633 3 6	471 15 0	611 1 6	452 5 6	607 7 0	.....	3,292 4 6
f. Sundries	463 15 0	365 13 7	466 2 11	425 10 8	340 4 6	390 4 3	.....	2,452 2 11
Payments to officers of other provinces	.....	.....	.....	.....	.....	.....	.....	.....
Total, B-III ...	3,151 4 6	1,620 9 10	1,913 15 0	2,056 6 10	1,186 0 11	2,090 7 6	.....	12,068 12 7
TOTAL, B.—ESTABLISHMENTS	30,528 11 4	43,200 5 6	35,803 11 8	31,388 1 3	26,336 14 9	37,924 7 6	1,879 8 2	2,07,121 12 2
GRAND TOTAL OF EXPENDITURE...	31,057 0 8	54,424 15 3	49,599 1 8	38,063 14 8	30,478 12 9	55,067 8 11	1,879 8 2	2,60,570 14 1
SURPLUS OR DEFICIT ...	–30,939 13 8	+2,08,687 0 10	+1,33,648 8 2	+34,949 1 6	+65,524 12 3	+91,183 8 6	+9,325 13 10	+5,12,318 15 5

FORM No. 24.—*continued.*

ABSTRACT.

	Revenue.	Expenditure.		Total.	Surplus or deficit.	
		A.	B.			
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1. Northern Circle ...	32,61,562 15 4	7,67,555 8 3	5,05,362 5 5	12,72,917 13 8	19,88,645 1 8	.....
2. Central Do. ...	19,14,802 2 11	9,95,077 12 9	4,90,868 9 8	14,85,946 6 5	4,28,855 12 6	.....
3. Southern Do. ...	32,35,936 12 7	20,32,130 2 8	4,92,343 12 4	25,24,473 15 0	7,11,462 13 7	.....
4. Sind Do. ...	7,72,889 13 6	53,449 1 11	2,07,121 12 2	2,60,570 14 1	5,12,318 15 5	.....
For the Presidency ...	91,85,191 12 4	38,48,212 9 7	16,95,696 7 7	55,43,909 1 2	36,41,282 11 2	.....
Net after Excluding Famine Fodder	80,12,149	25,60,927	17,35,681	42,96,608	37,15,541	.....

FORM No. 26.—*Revenue received and outstandings on account of revenue during 1918-1919.*

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
1	2	3	4	5	6	7	8
NORTHERN CIRCLE.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	Various sources ...	.....	725 0 10	725 0 10	725 0 10	.....	
Panch Mahals.	Timber and other produce.	.....	45,59,174 5 9	4,59,174 5 9	3,01,204 15 9	1,57,969 6 0	
Surat ...	Do. ...	6,555 0 0	5,34,351 14 1	5,40,906 14 1	5,34,229 2 1	6,677 12 0	
North Thána.	Do. ...	5,841 8 0	9,46,048 8 4	9,49,890 0 4	9,32,298 0 4	17,592 0 0	
West Thána ...	Do. ..	.....	5,16,549 9 10	5,16,549 9 10	5,04,096 1 10	12,453 8 0	
East Thána ...	Do. ...	5,920 14 0	4,27,283 7 10	4,33,204 5 10	3,92,162 0 10	41,042 5 0	
West Násik ...	Do. ...	24,367 0 0	2,07,336 10 5	2,31,703 10 5	2,10,350 10 5	21,353 0 0	
North Násik ...	Do. ...	.....	48,706 5 8	48,706 5 8	43,711 5 8	4,995 0 0	
East Násik ...	Do. ...	111 0 0	35,970 4 11	36,081 4 11	36,081 4 11	.....	
Famine Fodder	Do. ...	.....	3,06,704 4 8	3,06,704 4 8	3,06,704 4 8	.....	
	Total, Northern Circle.	40,795 6 0	34,82,850 8 4	35,23,645 14 4	32,61,562 15 4	2,62,082 15 0	
CENTRAL CIRCLE.							
Direction ...	Various sources ...	.....	581 11 0	581 11 0	581 11 0	.....	
East Khándesh.	Timber and other forest produce.	.....	1,88,531 12 7	1,88,531 12 7	1,88,531 12 7	.....	
West Khándesh.	Do. ...	1,688 4 0	2,06,588 3 6	2,08,276 7 6	2,07,297 11 6	978 12 0	
North Khándesh.	Do. ..	.....	1,56,209 6 2	1,56,209 6 2	1,44,149 14 2	12,059 8 0	
Poona ...	Do. ...	3,894 0 0	1,56,589 9 0	1,60,483 9 0	1,60,408 9 0	75 0 0	
Sátára ...	Do. ...	630 0 0	91,378 3 4	92,008 3 4	78,258 3 4	13,750 0 0	
Kolába ...	Do. ...	675 0 0	2,69,223 13 7	2,69,898 13 7	2,69,223 13 7	675 0 0	
Working Plans.	Do. ...	.....	1 13 10	1 13 10	1 13 10	.....	
Famine Fodder	Do. ...	.....	8,66,348 9 11	8,66,348 9 11	8,66,348 9 11	.....	
	Total, Central Circle ...	6,887 4 0	19,35,453 2 11	19,42,340 6 11	19,14,802 2 11	27,538 4 0	
SOUTHERN CIRCLE.							
Kánara, Northern.	Timber and other forest produce.	6,16,411 0 0	9,41,352 11 0	15,57,763 11 0	10,32,736 1 1	5,25,027 9 11	Written off Items Nos. 7 = 747 7 1 Amount. Rs. a. p.
Kánara, Eastern.	Do. ..	1,47,737 8 0	5,10,150 12 7	6,57,888 4 7	4,38,352 10 7	2,19,535 10 0	
Kánara, Central.	Do. ...	96,485 9 5	3,21,196 9 7	4,17,682 3 0	3,33,245 15 2	84,436 3 10	
Kánara, Southern.	Do. ...	7,503 15 7	67,063 5 10	74,567 5 5	69,774 10 3	4,792 11 2	
Kánara, Western.	Do. ...	1,78,383 3 8	4,92,549 2 6	6,70,932 6 2	5,61,146 14 5	1,09,785 7 9	
Belgaum ...	Do. ...	1,07,819 2 2	7,03,245 13 4	8,11,064 15 6	7,06,086 1 1	1,04,978 14 5	
Dhárwár-Bijápur.	Do. ...	12,160 6 4	1,05,916 13 4	1,18,077 3 8	93,464 11 8	24,612 8 0	
Direction ...	Various sources ...	.....	1,129 12 4	1,129 12 4	1,129 12 4	.....	
Working Plans	Do. ...	.....	.....	.....	.....	.....	
	Total, Southern Circle...	11,66,500 13 2	31,42,605 0 6	43,09,105 13 8	32,35,936 12 7	10,73,169 1 1	
SIND CIRCLE.							
Direction ...	Various sources ..	.....	57 3 0	57 3 0	57 3 0	.....	
Sukkur ...	Timber and other forest produce.	35,462 0 0	2,47,937 12 0	2,83,399 12 0	2,63,112 0 1	20,287 11 11	
Shikarpur ...	Do. ...	5,066 4 0	1,09,538 13 0	1,14,605 1 0	96,003 9 0	18,601 8 0	
Lárkána ...	Do. ...	5,272 8 0	67,740 8 2	73,013 2 0	73,013 0 2	.....	
Hyderabad ...	Do. ...	120 8 0	2,45,375 14 1	2,45,375 14 1	1,83,247 9 10	62,248 12 3	
Karachi ...	Do. ...	33,627 2 11	1,39,565 3 3	1,39,565 3 3	1,46,251 1 5	26,941 4 9	
Thar and Párkar.	Do. ...	.....	11,205 6 0	11,205 6 0	11,205 6 0	.....	
	Total, Sind Circle ...	79,548 6 11	8,21,420 11 6	9,00,969 2 5	7,72,889 13 6	1,28,079 4 11	
	GRAND TOTAL PRESIDENCY.	12,93,731 14 1	93,82,329 7 3	1,06,76,061 5 4	91,85,191 12 4	14,90,869 9 0	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1918-1919.*

Division.	Department Debtor.			Department Creditor.			Balance due		Rem.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1		3	4	5	6	7	8	9	1
NORTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
Direction Famine Fodder.	...	7,557 0 0	7,557 0 0	.....	7,557 0 0	7,557 0 0	.....	...	
North Thána ...	...	5,627 8 0	5,627 8 0	3,087 0 0	2,540 8 0	5,627 8 0	.....	...	
Surat ...	...	17,654 11 0	17,654 11 0	11,500 0 0	12,325 0 0	23,825 0 0	6,170 5 0	...	
Total, Contractors ...	...	30,839 3 0	30,839 3 0	14,587 0 0	22,422 8 0	37,009 8 0	6,170 5 0	...	
Disbursers.									
Direction Famine Fodder, N. C.	...	3,30,591 7 9	3,30,591 7 7	.....	3,33,066 5 5	3,33,066 5 5	2,474 13 8	...	
Direction Timber Operations.	...	4,954 0 6	4,954 0 6	.....	10,454 0 6	10,454 0 6	5,500 0 0	...	
Panch Mahals ...	...	44,368 3 11	44,368 3 11	388 12 10	44,392 8 0	44,781 4 10	413 0 11	...	
West Thána ...	...	73,567 12 6	73,567 12 6	1,546 4 3	74,169 1 3	75,715 5 6	2,147 9 0	...	
North Thána ...	...	1,16,025 6 10	1,16,025 6 10	3,736 3 7	1,26,289 12 6	1,30,026 0 1	14,000 9 3	...	
East Thána ...	...	1,02,729 10 10	1,02,729 10 10	1,290 14 9	1,04,073 8 3	1,05,364 7 0	2,634 12 2	...	
Surat ...	...	1,22,585 3 11	1,22,585 3 11	4,645 7 6	1,28,435 10 0	1,33,081 1 6	7,495 13 7	...	
North Násik ...	...	30,326 8 4	30,326 8 4	641 14 2	30,138 1 9	30,779 15 11	453 7 7	...	
West Násik ...	...	52,823 6 10	52,823 6 10	1,628 1 1	55,124 8 4	56,752 9 5	3,929 2 7	...	
East Násik ...	...	23,938 4 5	23,938 4 5	719 4 4	24,265 0 0	24,984 4 4	1,045 15 11	...	
Total, Disbursers ...	...	9,04,910 1 10	9,04,910 1 10	14,596 14 6	9,30,408 8 0	9,45,005 6 6	40,095 4 8	...	
TOTAL, N. C. ...	...	9,35,749 4 10	9,35,749 4 10	29,183 14 6	9,52,831 0 0	9,82,014 14 6	46,265 9 8	...	
CENTRAL CIRCLE.									
Contractors.									
West Khándesh ...	...	1,889 8 9	1,889 8 9	1,889 8 9	.....	1,889 8 9	.....	...	
West Khándesh Army Fodder Division.	...	15,000 0 0	15,000 0 0	15,000 0 0	.....	15,000 0 0	.....	...	
West Khándesh Fodder Forest.	...	3,12,500 0 0	3,12,500 0 0	.....	3,12,500 0 0	3,12,500 0 0	.....	...	
Total, Contractors ...	...	3,29,389 8 9	3,29,389 8 9	16,889 8 9	3,12,500 0 0	3,29,389 8 9	.....	...	
Disbursers.									
Direction ...	...	2,190 0 0	2,190 0 0	.....	2,190 0 0	2,190 0 0	.....	...	
East Khándesh ...	...	64,551 9 9	64,551 9 9	1,469 14 1	64,257 3 0	65,727 1 1	1,175 7 4	...	
West Khándesh ...	...	83,922 6 1	83,922 6 1	2,007 7 7	83,583 7 2	85,590 14 9	1,668 8 8	...	
North Khándesh ...	...	87,826 1 2	87,826 1 2	1,969 1 8	90,441 15 9	92,411 1 5	4,585 0 3	...	
Kolába ...	...	82,638 7 4	82,638 7 4	1,542 8 1	82,489 0 0	84,031 8 1	1,393 0 9	...	
Poona ...	...	91,058 14 10	91,058 14 10	1,467 12 10	91,001 1 11	92,468 14 9	1,409 15 11	...	
Sátára ...	...	62,471 13 6	62,471 13 6	921 8 1	62,140 0 0	63,061 8 1	589 10 7	...	
Working Plans ...	...	1,930 12 9	1,930 12 9	.....	2,050 0 0	2,050 0 0	119 3 3	...	
West Khándesh Fodder Forest.	...	1,93,127 10 6	1,93,127 10 6	.....	1,93,200 0 0	1,93,200 0 0	72 5 6	...	
West Khándesh Army Fodder.	...	5,932 13 3	5,932 13 3	.....	5,932 13 3	5,932 13 3	.....	...	
Sátára Famine Fodder.	...	15,713 13 2	15,713 13 2	.....	15,752 7 2	15,752 7 2	38 10 0	...	
Poona Famine Fodder.	...	7,320 8 3	7,320 8 3	.....	7,947 6 7	7,947 6 7	626 14 4	...	
Total, Disbursers ...	...	6,98,684 14 7	6,98,684 14 7	9,378 4 4	7,00,985 6 10	7,10,363 11 2	11,678 12 7	...	
TOTAL, C. C. ...	...	10,28,074 7 4	10,28,074 7 4	26,267 13 1	10,13,485 6 10	10,39,753 3 11	11,678 12 7	...	

FORM No. 27.—*Outstandings and Liabilities on account of Contractors and Disbursers for the forest year 1918-1919*—concld.

Division.	Department Debtor.			Department Creditor.			Balance Due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
1	2	3	4	5	6	7	8	9	10
SOUTHERN CIRCLE.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors.									
Kánara, N. D. ...	...	60,126 11 11	60,126 11 11	35,644 9 3	75,788 14 6	1,11,433 7 9	51,306 11 10	...	
Belgaum	...	1,47,413 1 10	1,47,413 1 10	76,798 10 9	1,49,001 0 0	2,25,799 10 9	78,386 8 11	...	
Kánara, W. D. ...	...	7,92,532 7 5	92,532 7 5	44,149 7 6	1,00,604 8 6	2,14,754 0 0	1,22,221 8 7	...	
Kánara, S. D. ...	...	6,742 9 5	6,742 9 5	8,496 3 3	11,000 0 0	19,496 3 3	12,753 9 10	...	
Kánara, E. D. ...	...	50,519 8 8	50,519 8 8	39,993 12 11	87,649 5 8	1,27,643 2 7	77,123 9 11	...	
Kánara, C. D. ...	...	26,482 11 3	26,482 11 3	35,670 1 4	51,766 8 9	87,436 10 1	60,953 14 10	...	
Total, Contractors ...	...	3,83,817 2 6	3,83,817 2 6	3,10,752 13 0	4,75,810 5 5	7,86,563 2 5	4,02,745 15 11	...	
Disbursers.									
Dhárwár-Bijápur ...	...	38,062 4 10	38,062 4 10	593 12 3	37,929 10 0	38,523 6 3	461 1 5	...	
Belgaum	...	2,89,253 9 7	2,89,253 9 7	25,480 2 1	3,22,806 14 5	3,48,287 0 6	59,033 6 11	...	
Kánara, N. D. ..	...	2,11,498 6 0	2,11,498 6 0	16,625 0 3	2,32,886 4 11	2,49,511 5 2	38,012 15 2	...	
Kánara, W. D. ...	...	1,43,531 0 3	1,43,531 0 3	20,529 15 3	1,41,670 1 5	1,62,200 0 8	18,669 0 5	...	
Kánara, S. D. ...	...	36,749 8 2	36,749 8 2	762 5 3	39,414 2 6	40,176 7 9	3,426 15 7	...	
Kánara, E. D. ...	...	1,70,751 5 6	1,70,751 5 6	9,232 12 8	1,94,539 4 0	2,03,772 0 8	33,020 11 2	...	
Kánara, C. D. ...	...	1,06,521 12 10	1,06,521 12 10	13,105 5 9	1,14,767 15 7	1,27,873 5 4	21,351 8 6	...	
Direction	...	16 9 9	16 9 9	746 5 0	.....	746 5 0	729 11 3	...	
Total, Disbursers ...	...	9,96,384 8 11	9,96,384 8 11	87,075 10 6	10,84,014 4 10	11,71,089 15 4	1,74,705 6 5	...	
TOTAL, S. C. ...	...	13,80,201 11 5	13,80,201 11 5	3,97,828 7 6	15,59,824 10 3	19,57,653 1 9	5,77,451 6 4	...	
SIND CIRCLE.									
Contractors.									
Direction	...	100 0 0	100 0 0	.....	100 0 0	100 0 0	.....	...	
Lárkána	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Karáchi	...	30 0 0	30 0 0	.....	30 0 0	30 0 0	.....	...	
Hyderabad	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Shikarpur	...	20 0 0	20 0 0	.....	20 0 0	20 0 0	.....	...	
Sukkar	...	30 0 0	30 0 0	.....	30 0 0	30 0 0	.....	...	
Total, Contractors...	...	220 0 0	220 0 0	.....	220 0 0	220 0 0	.....	...	
Disbursers.									
Lárkána	...	21,691 1 8	21,691 1 8	525 2 11	21,609 0 0	22,134 2 11	443 1 3	...	
Karáchi	...	40,051 8 2	40,051 8 2	2,838 12 3	39,031 14 1	41,870 10 4	1,819 2 2	...	
Hyderabad	...	35,947 3 0	35,947 3 0	3,603 5 1	34,749 4 0	38,352 9 1	2,405 6 1	...	
Sukkur	...	32,476 2 4	32,476 2 4	1,097 14 9	32,826 7 0	33,924 5 9	1,448 3 5	...	
Direction ...	...	640 2 10	640 2 10	0 2 10	640 0 0	640 2 10	.....	...	
Shikarpur ...	...	18,587 13 9	18,587 13 9	277 8 5	18,545 12 6	18,823 4 11	235 7 2	...	
Total, Disbursers ...	...	1,49,393 15 9	1,49,393 15 9	8,342 14 3	1,47,402 5 7	1,55,745 3 10	6,351 4 1	...	
Total, Sind Circle ...	...	1,49,613 15 9	1,49,613 15 9	8,342 14 3	1,47,602 5 7	1,55,965 3 10	6,351 4 1	...	
GRAND TOTAL PRESIDENCY.	...	34,93,639 7 4	34,93,639 7 4	4,61,623 1 4	36,73,763 6 8	41 5,?86 8 0	6,41,747 0 3	...	

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